

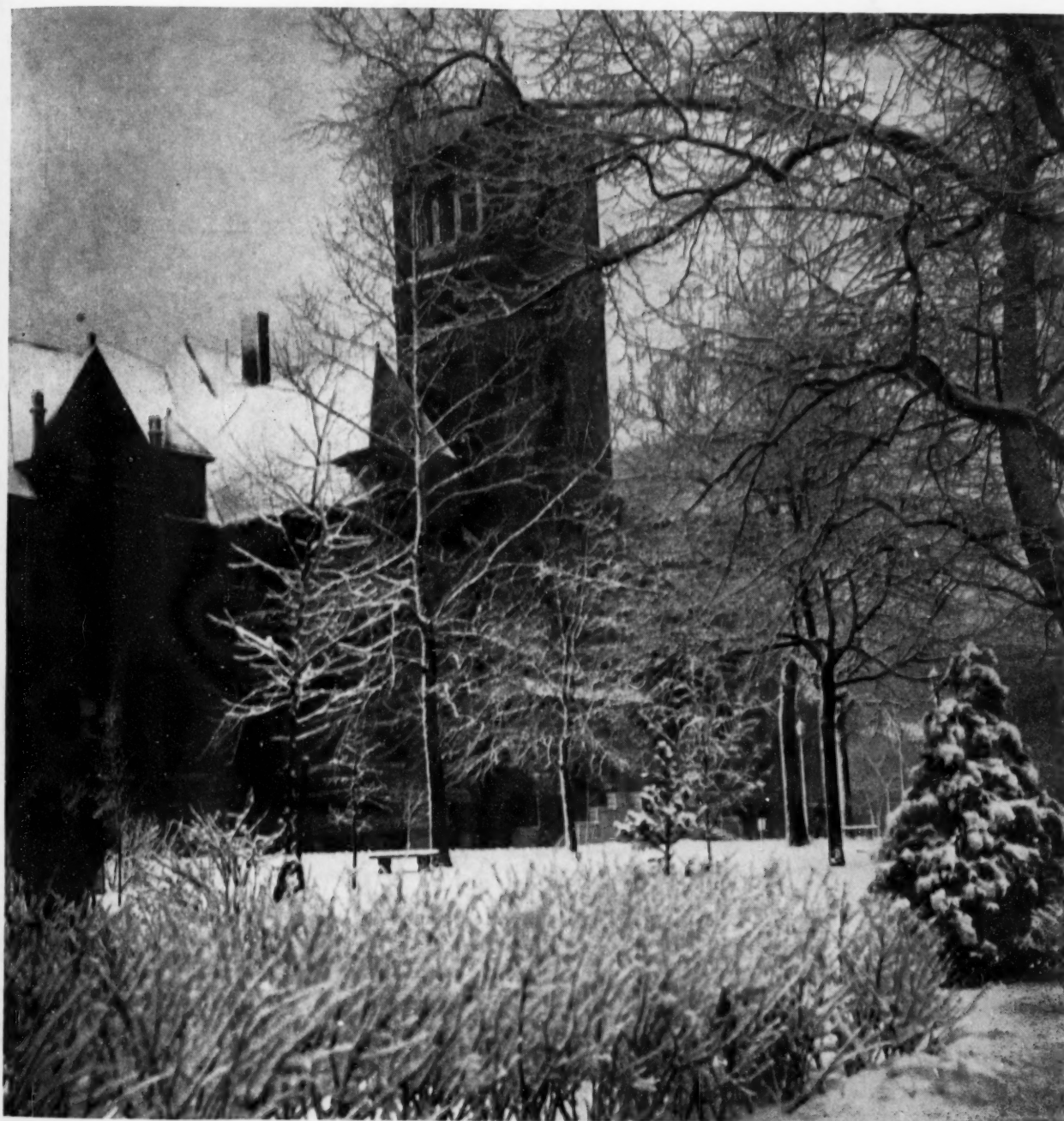
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Better Curricula for the Education of Teachers in the Elementary Schools

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Indiana, like many other states, has been engaged in developing an effective four-year curriculum for the education of teachers in the elementary schools. The state department of public instruction in 1936 increased the amount of training required for entrance into the teaching profession from two years to four years and asked that the program be in operation by 1940. It is needless to say that the evolution and inauguration of such a curriculum has been a slow and difficult undertaking.

While there was general agreement as to a basic philosophy of education and the principles of curriculum construction, many problems have arisen upon which very few people could agree.

The new curriculum follows the trend toward general education in the freshman and sophomore years and professionalized academic courses for the junior and senior years. One quarter or semester in the senior year has been set aside for supervised teaching and attendant problems which satisfies the request of teachers in the field for more supervised teaching.

After much discussion and experimentation the curriculum is still being revised. There is still disagreement as to the content of the survey courses in the sciences, the social studies, the language arts, and the appreciation subjects. There is a

question of practicality with regard to the education courses. Some activities in which teachers are expected to engage in the school-community seem to be entirely neglected in their preparation. The kind and amount of methods courses that are desirable is a moot question. Even the choice of elective courses has been troublesome.

In an effort to make the curriculum more effective two studies have been made by groups of graduate students during this last year. One of the studies deals with the opinions of teachers-in-service as to the subject-matter courses in college which have contributed most to successful teaching in the classroom; in this same study opinions as to the most desirable elective courses were solicited. The second study group made a survey of the professional and social-civic organizations in which elementary teachers-in-service participate and the benefits derived from the participation.

STUDY I

Everyone will agree that teachers in the elementary school need a rich background of subject matter as well as broad social experience, physical well being, and emotional stability. To secure this background of information college students in the past have been urged to select two major fields for specialization. The implication is that they will be better class-

room teachers, a source of help to school administrators in curriculum problems, and attain a sense of security which comes with being a specialist in some one or two fields. While the newer courses favor general education for two years followed by professionalized academic and education courses, there are still a few electives to be chosen. With these two factors in mind a letter and inquiry sheet were sent to one hundred graduates of the Indiana State Teachers College to determine:

1. What subject-matter fields have contributed most to successful teaching in the elementary classroom?

2. What elective courses have aided teaching on the elementary level?

Sixty-nine teachers responded, representing forty-four city teachers, fifteen teachers in rural consolidated schools, and six teachers in one- and two-room rural schools. Since most of the teachers taught more than one grade a composite picture of grade needs was available. Twenty-six represented the first grade, twenty-four the second grade, thirty-seven the third grade, thirty the fourth grade, thirty-two the fifth grade, twenty-seven the sixth grade, sixteen the seventh grade, and fourteen the eighth grade. The group was further representative in that twenty-six of



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the schools were departmentalized and thirty-four were not.

RESULTS

Sixty-three of the sixty-nine teachers indicated that the selection of subject-matter majors had contributed greatly to teaching success. Only six said that the majors had not contributed to their work. Since many students selected two or more subject fields for specialization, the totals in Table I are more than the number replying.

TABLE I
SUBJECT FIELDS WHICH
CONTRIBUTE MOST TO
SUCCESSFUL
TEACHING

Subject Fields	Number
English	47
Social Studies	45
Science	35
Fine Arts	5
Mathematics	4
Practical Arts	3
Physical Education	1

While the results are what one might expect, they support the belief that general education in the first two years will be beneficial to teachers. They also indicate English, science, and social studies as the needed fields. The factors which influenced the choice of these subject fields are in order: (1) a felt need for more information about the subject, (2) a preference for the subject in high school, (5) an interest in it in the first two years of college work, and (4) talent in the field. An inference to be drawn from these statements is that contact with the subject in the early years at college often wakens an interest in a certain field and that educational guidance has responsibility for discovering student interests and directing the choice of majors for specialization.

No doubt the feeling of confidence had something to do with making the work easier and more enjoyable. There is also a direct relationship between the way subject fields contributed to better school and community relationships and the statement that teachers were better able to carry on

extracurricular activities. Forty-eight replied that they were able to take part in the community-welfare projects. Others indicated that they had become club leaders and participated in much of the social life of the com-

TABLE II
HOW SUBJECT MATTER
BACKGROUND CONTRI-
BUTES TO SUCCESS-
FUL TEACHING

How Adequate Subject Matter Contributes	No.
1. Gives a feeling of confidence in teaching subject matter.	205
2. Enables one to adapt work to individual differences in interests and capacities.	165
3. Makes school work easier and more enjoyable.	145
4. Enables one to carry out a unit of work satisfactorily.	154
5. Helps one to carry out extra-curricular activities.	74

munity. A few indicated that they had been able to enter into discussions of professional groups more easily. By far the greatest number said that mastery of subject matter gave them a feeling of confidence and security in actual teaching situations and that is the real test of the worth of such courses.

TABLE III
SUBJECTS RECOMMENDED
FOR ELECTIVE COURSES

Subjects	No.
Public speaking	54
More art	51
More English	30
More supervised teaching	30
More music	25
More science	24
Radio broadcasting	19
More psychology	19
Elementary woodwork	16
Life philosophy	15
Play acting	15
More social studies	15
More education courses	15

Public speaking ranks first as a subject to be taken. Probably teachers in the field have a need for more training in the art of speaking before an audience since teachers are called upon to make talks before groups of people. The use of the word "more" before many of the broad fields of

subject matter indicates that a broad rich background of information is most essential. A few specific courses were mentioned which might be recommended to teachers.

CONCLUSIONS

Most of the suggestions made by teachers-in-service and most of the items checked as important by them have been incorporated in the new four-year curriculum. Generally speaking this first study showed that revision of the curricula was in the right direction and would meet the needs of teachers in the field. Probably some of the newer courses such as radio, speech, play-acting, creative art, and the like are more essential than more of the foundation work. At least the electives are needed to take care of these modern trends in curriculum enrichment.

STUDY II

With the present emphasis upon community-school relationships, the teacher's day is crowded to capacity. The research bulletin of the National Education Association shows a need for studying the teacher's load. Inasmuch as teachers are expected to participate in both social-civic and professional organizations a group of students conducted a study to determine to what extent the average teacher participates in these groups, the duties that membership entails, and the benefits derived from belonging to organizations.

A letter and check list were sent out to 150 elementary teachers in the field to which 125 replied.

Of the 125 teachers answering these questionnaires, ninety-five taught in city schools, twenty-two taught in consolidated schools, five were rural teachers, and one failed to designate where she taught.

These teachers were distributed by grade, grades, or subjects as follows:

Grades Taught	Number of Teachers
Kindergarten	2
First	28
Second	22
Third	19

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Fourth	20
Fifth	22
Sixth	22
Departmental Teachers	15
All grades	1
Not marked	1

A total cannot be made from these figures because several teachers taught more than one grade. But one can readily see that the survey is well-distributed throughout the elementary school level.

The replies concerning the length of time the teachers had taught in the community ranged from one to forty-two years, with eleven people who did not care to designate the length of their service in the community. The exact figures are as follows:

Length of Service	Number of Teachers
1 to 5 years	29
6 to 10 years	11
11 to 15 years	32
16 to 20 years	20
21 to 25 years	10
26 on	10
Not marked	11
Total	123

One hundred and four teachers said that the benefits derived from active membership in organizations were equal to or greater than the obligations involved. Only four teachers said they were not greatly benefited. The professional organizations and the social-civic organizations listed on the check sheet were those that research indicates are most common to the average classroom teacher. The professional organizations were:

- National Education Association
 - Association of Childhood Education
 - Progressive Education Association
 - State Teachers Association
 - Parent-Teachers Associations
 - Teachers Federation
 - County Institute
 - Reading Circle or Club
- The social and civic organizations were:
- Young Women's Christian Association
 - Farm Bureau Organizations
 - Sponsor of Youth Clubs
 - Church Activities

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TABLE IV
DUTIES AND BENEFITS IN PROFESSIONAL ORGANIZATIONS

	N. E. A.	P. T. A.	A. C. E.	Tchrs. Fed.	Ind. State Tchrs. Assoc.	Prog. Educ. Assoc.	Co. Inst.	Reading Circle	Others
Number belonging	79	82	50	89	100	2	37	5	3
DUTIES									
1. Prepare programs	2	54	10	19	3	1	4	1	2
2. Attend meetings	8	87	44	83	101	5	37	1	2
3. Hold office	1	38	12	20	7	1	1	0	1
4. Pay dues	79	82	50	89	100	2	19	5	1
5. Serve on committees	5	64	27	57	7	1	7	0	2
6. Make donations	2	48	16	30	3	0	3	0	1
7. Give talks	0	31	6	8	0	1	11	3	1
8. Write articles	0	2	4	4	1	0	0	0	1
9. Entertain socially	0	17	15	15	1	1	0	0	0
10. Carry on drives	3	26	5	4	0	0	0	0	0
TOTAL	102	454	195	339	224	14	82	15	10
BENEFITS									
1. Receive publications	77	21	33	43	81	6	5	4	2
2. Widen social contacts	7	67	36	53	56	6	24	2	1
3. Hear lectures	20	59	49	52	92	8	32	0	0
4. Achieve security in position	18	13	5	42	36	1	1	0	1
5. Gain pleasure	23	41	32	43	67	5	24	5	1
6. Increase salary	7	1	1	42	24	0	5	1	0
7. Learn new methods	32	8	31	12	57	4	22	2	0
8. Improve teaching	41	31	35	24	64	7	22	1	1
TOTAL	225	241	222	313	477	37	135	15	6

- Greek Letter Organizations
- Political Club or Organization
- Literary Club
- Lodge
- Daughters of American Revolution

RESULTS

The membership in the State Teachers Association was 100 per cent and the benefits were double the duties involved. While membership in the Teachers Federation

ranked second, the benefits and duties were nearly equal. Membership in the Parent-Teacher Organization ranked third, and the duties involved doubled the benefits received.

The results as a whole indicated that teachers not only belong to many professional groups but actively participate in them and that the benefits outweigh the responsibilities

TABLE V
SUMMARY OF PROFESSIONAL ACTIVITIES

Organizations	Total Number Belonging	Total Number of Duties	Total Number of Benefits
National Educational Association	79	102	225
Parent-Teachers Association	82	454	241
Association Childhood Education	50	195	222
Teachers Federation	89	359	315
Indiana State Teachers Association	100	224	477
Progressive Education Association	2	14	37
County Institute	37	82	155
Reading Circle	5	15	15
Others	3	10	6
TOTAL	447	1,435	1,671

involved. A study of the specific benefits of each group reveals that the publications are used and appreciated; that the widening of social contacts is considered valuable; and that the literature, lectures, and contacts result in better teaching in the classroom.

The 123 teachers belonged to 447 organizations which means that the average classroom teacher participates in three or more professional

organizations during the school year.

Attending meetings and paying dues are the duties performed by most of the teachers who belong to social and civic organizations. Making donations and serving on committees came next. The widening of social contacts and the gaining of pleasure were the benefits derived from participation in these social and civic groups. It is interesting to note that the teachers feel church activities aid

more in the improvement of teaching than any other of the organizations.

A glance at the summary table shows that more than twice as many teachers engage in church activities as in any other activity. The obligations entailed by membership in the civic-social groups are approximately double the benefits received. While more than half the teachers checked yes in answer to the final question "Do you feel that the benefits derived are equal to the obligations involved?" the table does not bear this out. It may be that certain benefits are indefinable and could not be recorded.

SUMMARY

The second study was not as revealing as the first one but it does indicate a need for further research in this field. A study of the extra-curriculum activities of city teachers compared to those of rural teachers would be helpful. A study of teachers' outside interests and wishes with regard to community activities

(Continued on page 52)

TABLE VI
SOCIAL AND CIVIC ORGANIZATIONS

DUTIES	Y. W. C. A.	Farm Bur.	Youth Clubs	Ch. Act.	Gr. Let. Org.	Plt. Org.	Lit. Clubs	Ldgs.	D. A. R.	Y. M. C. A.	B. & P. W.	Soc. Clubs
Prepare programs	3	1	110	41	12	3	19	7	0	0	1	2
Attend meetings	5	5	17	92	50	16	50	52	2	0	1	2
Hold office	0	0	8	48	18	2	19	15	0	0	1	2
Pay dues	15	2	7	82	27	7	52	58	2	5	1	2
Serve on committees	1	5	15	64	24	8	25	25	1	0	1	2
Make donations	16	0	19	86	18	12	15	12	1	4	1	1
Give talks	0	0	8	25	5	0	16	4	0	0	1	2
Write articles	0	1	2	4	5	1	7	0	0	0	1	0
Entertain socially	2	0	9	59	26	1	20	9	0	0	1	2
Carry on drives	5	0	8	21	7	5	6	4	0	0	1	2
Act as delegate	0	0	2	10	8	1	4	5	0	0	1	2
Total	45	10	105	512	180	54	195	149	6	7	11	19
BENEFITS DERIVED												
Receive publications	2	4	7	45	18	10	15	6	1	0	1	1
Widen social contacts	6	3	16	77	28	16	27	28	5	0	1	2
Hear lectures	5	3	7	62	14	14	25	7	5	0	1	2
Achieve security in position	2	0	1	5	1	1	0	1	0	0	1	0
Gain pleasure	6	3	18	80	29	12	29	27	1	0	1	2
Improve teaching	2	1	9	35	5	5	11	2	1	0	1	0
Total	23	14	58	302	95	56	107	71	9	0	6	7

Homogeneous Grouping and Pupil Attention in Junior High Schools

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The relative desirability of homogeneous grouping versus heterogeneous grouping is still an open question. The statistical evidence is inconclusive and opinions are contradictory. The present study employed attention scores in two junior high schools in an effort to find further evidence.

If homogeneous grouping is superior to heterogeneous grouping, higher attention scores should be found in a school that uses it than in one that does not, other things being equal. If in a school that uses heterogeneous grouping the teachers pitch their instruction to the great middle group, it is reasonable to expect the bright and the dull pupils to be less attentive than if they were in sections by themselves where instruction more nearly met their needs. In order to obtain statistical data on these theoretical matters, co-operation was obtained of two junior high schools that were similar in many respects but dissimilar in their methods

The following advanced students at Indiana State Teachers College helped in gathering or treating the data of this investigation: Jeanette Arnett, Fern Brothers, Mary Burton, Florence Davis, Florence Donnelly, Pauline Duffy, Herman Fontaine, Lyman Foust, Dorothy Harris, Edmond Lorey, Wesley Lyda, Carl Lyles, Lena McCollum, John O'Connor, Elizabeth Oliver, Mack Ralston, Rhessa Routh, John Rush, Mabel Schauss, Mary Sharp, Carroll Stark, Ruth Stark.

of grouping pupils. One school classified its pupils alphabetically into approximately equal divisions. The other gave group intelligence tests and divided the children into approximately equal sections on the basis of the test. These schools will be designated as Y and X, respectively, throughout the remainder of this report.

Several matters of detail in arranging the experiment had to be worked out very carefully. The principal ones are described in outline form below.

1. Most of the people co-operating in the experiment had their prejudices one way or the other in regard to the issue at stake, but they were careful to see that their prejudices did not influence the fairness of the experiment.

2. Measures of attention were made by twenty-two seniors and graduate students at Indiana State Teachers College. The students were carefully instructed in advance on all details of attention measurement. This instruction included the distribution of mimeographed directions and warnings adopted from Morrison,² a series of trial observations in the Indiana State Teachers College Laboratory School, and a discussion of problems met in the trial observations. The trial observations were

²Henry C. Morrison, *The Practice of Teaching in the Secondary School*, Chapter VIII (Chicago: University of Chicago Press, 1926).

continued until all members of the group could come within 5 per cent of one another in attention scores computed for the same class seen.

3. The students were organized into teams of two each and assigned to the two junior high schools and the different ability levels in School X as equitably as possible. Most observers divided their time between the two junior high schools in about the same ratio.

4. All observers recorded their data minute by minute on printed forms worked out in advance.

5. Time was not counted at the beginning of a period when a class as a whole had not come to order. This made all scores higher than they would have been otherwise.

6. The two members of a team assigned to observe in a particular classroom worked independently. The median of their attention scores was taken as the true measure of attention for the hour observed. In computing all scores and medians, fractions were avoided by using the nearest whole per cent, halves being counted as the next higher whole per cents.

7. A team assigned to a given class in a junior high school observed at the same day and hour once each week for three successive weeks. The median of the three median scores was taken as the final figure to represent the attention of a given class. In three instances a team member was ill and could not make one visit of a set of three. In those cases, the final scores were based on just two observations.

8. The third, fourth, and fifth weeks of the semester were selected for the experiment. Thus the experiment was free from factors incident to the opening of the semester or to the testing of the last week of the six-weekly grading period. These weeks were free also from any other exciting or disturbing elements.

9. One of the junior high schools consisted of only grades seven and eight, while the other had the ninth also. Therefore, the experiment was made to include only grades seven and eight.

TABLE I
ATTENTION SCORES BY SCHOOLS, SUBJECTS, GRADES, AND WEEKS

Subjects and Grades	School X						School Y					
	Ability Level	First Week			Second Week			Third Week			Median of Medians	Teacher
English	1	96	98	97	99	97	98	98	99	99	98	A
	2	96	97	97	99	99	99	96	95	96	97	B
7-A	2	99	100	100	96	94	95	99	97	98	98	A
	3	92	97	95	91	96	94	97	98	98	95	A
	3	99	98	99	93	93	93	98	96	97	97	A
Mathematics	1	96	97	97	98	99	99	99	99	99	99	C
	2	97	97	97	99	98	99	98	C
7-A	3	96	98	97	96	96	96	97	97	97	97	C
Social Studies	1	97	95	96	97	96	97	97	92	95	96	D
	2	93	92	93	96	95	96	98	97	98	96	D
7-A	3	96	96	96	95	95	95	95	95	95	95	D
General Science	1	92	94	93	94	93	94	94	95	95	94	E
	2	95	96	96	93	93	94	97	98	98	96	E
7-A	3	93	91	92	95	96	96	95	91	93	93	F
English	1	91	87	89	95	97	96	96	98	97	96	G
	2	95	97	96	97	97	97	99	97	98	97	G
8-A	3	95	87	91	98	98	98	91	98	95	95	G*
	4	88	93	91	94	90	92	90	91	91	91	G
Mathematics	1	99	89	94	99	98	99	99	99	99	99	H*
	2	96	97	97	97	98	98	99	99	99	98	H
8-A	3	97	98	98	98	97	98	98	99	99	98	H
	4	97	93	95	95	96	96	97	95	96	96	H
Social Studies	1	95	94	95	96	95	96	96	96	96	96	I
	2	96	94	95	97	95	96	97	98	98	96	I
8-A	3	95	89	92	96	94	95	94	97	96	95	I*
	4	96	96	96	94	95	95	96	93	95	95	I
General Science	1	98	98	98	99	99	99	99	97	98	98	J
	2	94	97	96	98	96	97	98	98	98	97	J
8-A	3	97	97	97	94	97	96	96	98	97	97	J
	4	96	89	93	95	97	96	95	96	96	96	J*

*Instances in which the attention scores found by the team members for a single observation differed by more than five per cent.

10. Since the "January" group of pupils was smaller than the "September" group, there were only two ability levels of 7-B and 8-B pupils in the School X, while there were three of 7-A and four of 8-A. Therefore, only grades 7-A and 8-A were used in both schools.

11. The experiment was confined to those academic subjects common to both schools and both grades. This limited the observations to classes in English, mathematics, social studies, and general science.

12. Nearly all of the teachers in both schools who taught these subjects in the 7-A or 8-A grades were included in the experiment. They were not included an equal number of times each, however, but were worked in as often as possible in light of difficulties of schedule making.

13. Every ability level in each of the four subject fields in grades 7-A and 8-A at School X was observed. Since this school had separate classes in composition and literature in grade 7-A, more than one English class was observed at two of the ability levels of that grade. A total of thirty classes was observed at School X. Not as many classes were observed at School Y, only twenty, since all classes in a grade and subject were about equally representative. Enough classes were included at Y to make adequate comparisons.

14. The classes in one junior high school were about the same size as those in the other.

15. The various teachers were given mimeographed sheets explaining the experiment but asking them not to explain it to their pupils.

16. Difficulties in scheduling the observations made it impossible to keep the hours of the day and the days of the week in which visits were made to one school exactly comparable to those of the other. They were not greatly dissimilar, however, and it is doubtful whether this factor had any influence on the result.

All of the essential data of this investigation are assembled in Table I. The attention scores are arranged by

subjects and grades and schools. The ability levels in School X are indicated by numbers 1, 2, 3, or 1, 2, 3, 4; 1 always being the highest level, and the others successively lower. Three figures appear for each section each week, the first and second being the attention scores obtained by the separate team members, and the third the median of the first two. The medians of the medians and letters indicating the teachers are shown farthest to the right under the headings of the two schools. These medians of medians are regarded as the final measures of attention.

A preliminary observation to make from Table I, before the more significant elements are considered, is the close agreement between the two observers in each classroom. In only eight out of 147 observations did the attention scorers differ by more than 5 per cent. This is evidence of the reliability of attention scores. The reliability of attention scores, however, had already been established by Blume³ and by the present writer.⁴ It is the validity of attention scores

³Clarence E. Blume, "Techniques in the Measuring of Pupil Attention," *The Second Yearbook of the Department of Supervisors and Directors of Instruction*, Chapter III (New York: Bureau of Publications, Teachers College, Columbia University, 1929).

⁴J. R. Shannon, "A Comparison of Three Means for Measuring Efficiency in Teaching," *Journal of Educational Research*, March, 1936, pp. 501-508.

⁵The writer has discussed the validity of attention scores elsewhere (*Ibid.*, p. 508) as follows:

"Three assumptions lie back of the proposal to use attention scores as a means for evaluating teaching: (1) Good teaching will hold pupils' attention and poor will not; (2) With pupils remaining attentive, definite and valuable learnings are bound to result; (3) Certain external evidences of attention may be regarded as valid indications of attention. The validity of the device depends on the truth of these assumptions, and the truth of the assumptions is highly questionable.

"That good teaching will hold pupils' attention and poor will not; errs



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rather than their reliability that is open to question.⁵ But, certain evidences and considerations to the contrary, common observation establishes enough validity of attention scores to

in the implication that pupils' attention is influenced only by stimuli that are definitely under the control of the teacher. Other factors which are known to enter into the situation are the pupils' previously acquired interests, their health and hygiene, outside disturbances, the weather, recent or impending extracurriculum activities of an exciting nature, and certain factors of heat, light, and ventilation which are beyond the teacher's control.

"That with pupils remaining attentive, definite and valuable learnings are bound to result, carries the implication that all teaching materials and content are worthy. But foolish stories and nonsense demonstrations will hold attention so long as they are novel.

"That certain external evidences of attention may be regarded as valid indications of attention, errs in the implication that mental states have standardized objective physical concomitants. A child may be attentive to all that is said, but still sit languid with his eyes closed, or look out of the window. Also, he may follow every movement of the teacher with his eye but have his mind on her dress or physical appearance."

justify their use for the present purpose.

A second observation from Table I, which is somewhat aside from the major point of interest in this investigation, is the differences in attention scores between ability groups in School X. Although the differences are not large and not always consistent, there is an observable tendency toward higher attention scores for the higher ability groups. That such tendency could have been expected is in itself some evidence of the validity of attention scores.

Now for the point of major concern: What do the figures of Table I indicate concerning the relative desirability of homogeneous grouping versus heterogeneous grouping? Obviously, the figures for School X are somewhat higher, on the whole, than those for School Y. This may indicate that in so far as attention scores are an indication, homogeneous grouping is preferable to heterogeneous. But the evidence is not conclusive. It must be proved first that all factors in the two schools that might affect attention were identical except the plans of grouping pupils. Otherwise, the difference in attention scores may be evidence of differences between individual teachers in the two schools,

or of some other factors not even brought to the attention of the investigators. That the difference in scores between the two schools may be largely the result of differences between teachers is evinced by a number of considerations, among which are the following.

1. Noticeable differences between the attention scores in the classes of various teachers are present in each school, but more especially in School Y.
2. Three of the Y teachers (P, S, and T) had as high average scores as any of the X teachers, and one of them (T) had one score of one hundred the only perfect score in either school.
3. After the schedules for observing in the two junior high schools were arranged, two of the best teachers in School Y withdrew because of sickness and were replaced during the three weeks of the experiment by supply teachers. These teachers (N and R) were observed more than most others in School Y, and the attention scores in their classes were lower than those of most of the regular teachers in the school.
4. The only regular teacher in School Y who was observed in as

many as three classes (L) happened to have a relatively low score in each class. This gave undue weight in the composite of scores in School Y to one teacher whose scores happened to be low. If Teachers O, P, or S, whose scores were high but who were observed in only one class each, had been observed as many times as Teacher L and Teacher L as few times as O, P, or S, the composite might have been quite different.

As was stated near the beginning of this report, if homogeneous grouping is superior to heterogeneous grouping, higher attention scores should be found in a school that uses it than in one that does not, other things being equal. It seems from the above considerations that some of the "other things" probably were not equal. It seems that more low attention scores appear in the report for School Y than the difference in the plans of grouping can be held accountable for. It seems, therefore, from the data of this investigation, that homogeneous grouping on the basis of group intelligence test scores has not been proved more desirable than heterogeneous grouping, but certainly it has not been proved less desirable.

Better Curricula for the Education of Teachers in the Elementary Schools

(Continued from page 48)

TABLE VII
SUMMARY OF SOCIAL-CIVIC ORGANIZATIONS

Organizations	Total Number Belonging	Total Number Duties	Total Number Benefits
Y. W. C. A.	13	43	23
Farm Bureau	2	10	14
Sponsor Youth Clubs	17	103	58
Church Activities	82	512	302
Greek Letter Organizations	27	180	93
Literary Clubs	32	193	107
Political Organizations	7	54	56
Lodges	38	149	71
D. A. R.	2	6	9
Y. M. C. A.	3	7	0
B. & P. W.	1	11	6
Miscellaneous Clubs	2	19	7
TOTAL	226*	1,287	746

*Eleven teachers did not belong to any social or civic organizations.

might be worth-while. Perhaps the college curriculum can do more to bring about a school and community attitude by providing actual participation in professional and social-civic organizations and activities during the college life of the prospective teacher. Again the answer seems to be a counseling program or educational program or educational guidance of individuals.

The Ideal Remedial Reading Program

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This discussion of a remedial reading program is from the point of view of practical application, with a minimum of emphasis on theory. The advancement of theory and the testing of its validity is the task of the experimentalist; it is when practical application of a theory is made that it is put to use in the classroom. To that end this discussion is centered around three questions, which, together with their implications cover all or nearly all the problems which are encountered in setting up a remedial reading program. The questions are:

1. Who shall teach remedial reading?
2. To whom shall remedial reading be taught?
3. What is taught, and how is it taught?

Before taking up the first question we may take a moment to define remedial reading. It is simply the process of increasing the reading ability of certain subjects until it reaches a certain criterion. I should like to be able to give you a simple, clear-cut criterion according to which we could judge accurately whether or not a given child is a reading disability case or when he ceases to be one. I know of no simple test or technique, which, when applied to a child, will tell us whether or not he is a normal reader. However, certain criteria which can be and are used

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will be discussed under the second question.

WHO SHALL TEACH IT?

We proceed now to a discussion of the first question, "Who shall teach remedial reading?" We may well consider the personality of the teacher of such a class. This teacher needs to be even more understanding, sympathetic, patient, versatile, and objective than the regular classroom teacher. The remedial reading teacher needs to know the theories which underlie the various methods of teaching reading, so that given a knowledge of the theory, together with imagination and versatility, she can devise innumerable ways of presenting material, innumerable techniques by which she can accomplish her aims. This is important for the teacher of a remedial reading class because many of the children who find their way to her class come from well-taught classes. This means that the conventional methods, be they ever so good for most children, have proved ineffectual for this particular child. It becomes necessary, then, for the remedial teacher to devise new approaches, remembering that it is only the technique which differs, not the principle. The principles of learning are the same for "problem" children as for normal children.

The teacher of remedial reading should be objective. What do we mean by objectivity? We mean, first of all, that she have good mental health, that she not have personal problems which she is unable to solve. If she cannot manage her own personality she is in no condition to

reeducate the emotional, social, and educational misfit. She should be able to evaluate, study, and diagnose the behavior of her client without complicating the problem with her own attitudes, feelings, and emotions. In a word, then, we expect this teacher to have excellent mental health.

What sort of training do we expect this teacher to have? First of all, she should have a thorough knowledge of all the methods of teaching reading together with the theories which underlie them. This is obvious. She should also have a thorough knowledge of adult psychology as well as a child psychology; of normal psychology as well as abnormal psychology. The remedial teacher must know how to secure the co-operation of parents, physicians, social workers, etc., since the child who presents reading problems is most likely to present other problems. Emotional disturbances may be either cause or result or both of a reading disability. It is difficult and usually unnecessary to determine which causes which. Frequently the reading problem can be removed by removing the emotional disturbance. The converse may also be true; that is, achievement of emotional stability through reading, hence the necessity for thorough training in psychology. This teacher, to the degree that usually is not required of the classroom teacher, must be able to see the whole child, not only that part of him which is represented by the reading disability. Each child's individuality must be respected. Here, if anywhere, rapport between teacher and child is important; here, if anywhere, the child should be able to show his real self without fear of social criticism or humiliation.

WHO SHALL TAKE IT?

Now that we have decided what sort of teacher we must have, we shall have to decide whom she is to teach. "To whom shall remedial reading be taught?" Remedial reading need not, except in rare cases, be introduced before the third grade. We say this, not because there are no problems in the first and second

grade, but because in most schools first and second grade children are already taught individually, that is, they are already getting the sort of attention they would receive in the remedial class.

The most frequently used criterion for segregating reading disabilities from normal readers is mental age or IQ. If a child's mental age is higher than his reading age as measured by standardized tests, we designate him as being retarded in reading. This is perhaps the best single measure to use for this purpose, but there are several dangers involved. In the first place the mental age is usually determined by means of a group test which requires reading on the part of the subject. He must be able to read in order to perform the test operations. If he cannot read he also cannot perform on the intelligence test, consequently his low score may be due to either of two factors; he may be mentally retarded or he may be retarded in reading. This criterion must be applied with caution. The following steps or procedures will tend to lessen the danger of drawing wrong conclusions from group intelligence test scores:

1. Secure the results or scores of all group tests administered routinely in the school system. These will most likely consist of an intelligence test and a battery of achievement tests, including perhaps reading, arithmetic, spelling, language, etc. The various scores of each child should be compared with each other. Those children who present a total picture of low scores and those who present discrepancies in their scores should be tested further.

2. This further testing would include the administration of the Binet test of intelligence, perhaps an additional reading test, preferably both an oral and a silent reading test, tests of vision and hearing, and some estimation as to the general physical condition of the child and some estimate of his emotional stability. This latter may be done either by the interview method or by standardized tests, even though we recognize that such tests give only a very rough pic-

ture of the child's personality. A rough estimate is better than none, provided that we remember that it is only an estimate.

3. Collect from school records all available data concerning illnesses, absences, truancy, school marks, failure to be promoted, etc. Also take note of any record of abnormal behavior such as excessive shyness, negativism, lying, stealing, temper tantrums, etc.

4. Interview the classroom teacher of each of the children in this group. She more than likely will be able to give information that may throw light on the child's problem. Interview the parents, if possible, and most certainly interview the social worker and the school nurse together with other professional workers who may have responsibilities toward the case.

5. Now that you have collected all the data for each of these candidates for the remedial reading class, you are ready to begin the process which will screen the reading disabilities. If the total picture of a given child consistently points in the direction of mental retardation, he is not a case for remedial reading. He does need some form of special attention, but he is not a case for the remedial reading teacher. The remedial teacher, if adequately trained, need not fear to use her own judgment concerning interpretations of the data she has collected. After all, teaching is mainly a function of the personal relationships between teacher and pupil, and if she hesitates to make subjective judgments concerning her charges she had better enter some other profession. On the basis of her interpretation of the data, then, she decides which children present problems in her sphere.

WHAT ARE THEY TO DO?

We have now chosen a teacher and a group of pupils. What are they to do? These retarded readers are taught essentially according to the same principles as govern the teaching of normal children. The most difficult task is that of motivation. Here, of course, the teacher's imagination and ingenuity must come to

her aid. The first problem is that of establishing rapport between teacher and pupil. The teacher must set the stage for a frank acceptance of the problem by the child. Children cannot be forced to read; each child must be helped to know and understand his own problem, to accept it without undue emotional disturbance, and at the same time be led to feel hopeful about it. Here we achieve real individualization.

If we are to extend aid to a sufficient number of children, our program must be so organized as to allow for group work. Any one of several methods of grouping cases may be used. They may be grouped according to reading achievement, as all those who score at the second grade level are put into one division, those at the fourth grade in another group, etc. Or the children may be grouped on the basis of their interests, as those who may be most easily interested through mechanical projects, as building according to written directions, may be grouped together regardless of their level of achievement. Or grouping may be on the basis of the problem, such as taking together all those children needing training in phonics or those needing drill in sight vocabulary. The particular method of grouping which will be best for any one school system depends upon several factors, such as number of children needing training, number of teacher hours available, personality and special aptitudes of the teacher. If a teacher finds it relatively easy to establish and maintain rapport in a group of children whose ages vary greatly, she may prefer to group the children according to interests or needs. If she finds it difficult to adjust to a group of children whose ages vary greatly, she may find it easier to group them according to chronological or mental age. The important factor is not physical homogeneity but psychological homogeneity; teacher and pupils must be comfortable and happy in the arrangement.

In spite of the most wisely chosen arrangement for grouping cases, a few will remain who do not seem to

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Personality and Social Problems in Speech Development

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The topic we are going to discuss this afternoon is the relationship between emotional problems and the development of speech. Before we commence the topic I think it might be well if we made this point, that all relationships between speech and emotional problems tend to be circular. By a circular relationship I mean one in which each factor is causative in the appearance and degree of the other. Let me illustrate still more explicitly to make this point clear. Given a child with a speech disorder and a personality maladjustment we cannot always be sure which came first; whether the speech disorder was the cause of the emotional maladjustment or whether the maladjustment is expressing itself in the speech disorder. Nor is this all of the problem, because in the truly circular relationship we find that regardless of whichever is the first factor to appear, the speech disorder in turn aggravates the emotional problem, which in turn tends to increase the speech problem and again, that, in turn, creates a still greater emotional problem. That is a truly circular relationship. It is the hope of the clinical psychologist, which the speech correctionist is, to break in upon this circle at some point, even though he may not be positive as to which factor first made its appearance.

In the consideration of our topic for this afternoon, I could not help

bringing to mind a certain character with whom all of you are familiar. He is famous for a whistling pipe and a well developed pair of biceps. He expresses the philosophy "I yam what I yam." Need I say that had Popeye been more of a psychologist and relied less upon spinach to get him out of his difficulties he would not have the philosophy that implies "I am what I am, so what?" but one that concerned itself with the issue, "I am what I am, so why?"

Each of us will profit if we accept the viewpoint that both children and adults present a composite picture of all that has happened to them since birth. Each child and each adult is the result of his own specific past. Sometimes we liken people to trees. If we cut down a tree we find rings, one ring corresponding with each year of the tree's life. The relative distance apart of the rings on the tree leaves a graphic record of the relative rainfall during the years of the growth of the tree, but the composite of each year's growth gives us the complete picture. People also might be likened to watermelons. One year, from a certain type of seed, watermelons are grown which are stringy and dry. The next year identical seeds may be planted in identical ground and a crop of watermelons be luscious and juicy. Now, in our illustration we can very easily control the factor of identity of seed and identity of ground, so we are positing the viewpoint that the difference in the type of watermelons arose from the relative rainfalls in those two years. I think this entirely plausible as an illustration. Regardless of whether

the watermelon is a joy or unsatisfactory to eat, we find that the conditions which made the watermelon were beyond the control of the watermelon, yet reflect what happened to it. Children and adults are very much like watermelons in that many, in fact most, of the things that happen to them are beyond their control.

NOT THE FACT, BUT THE INTERPRETATION

One point which we ought not to overlook, one of the most important points, I feel, in our discussion this afternoon, is this: It is not the fact that is most important to people but the interpretation which they put upon the fact. I think this statement will account for what many of you (in your own minds) are saying, "I can think of Jim Jones who certainly met with the worst circumstances of anyone I have ever known, and yet if you look at Jim Jones today you will find that he is relatively well-balanced, whereas John Doe comes to mind who apparently did not meet any circumstances so strenuous as those encountered by Jim Jones, yet he presents an obvious picture of maladjustment. Now, how are you going to explain such a situation as that?" Once again our explanation is the statement: "It is not the facts, but the interpretation of the facts which harms adjustment."

I feel that our point would be made entirely clear if I were to illustrate by the case of a family of which I once heard. There were three members of the family: a father, a mother, and a daughter. Each member of that family was showing signs of rather serious maladjustment because the family income had been cut to seven thousand dollars. The illustration may sound absurd because I imagine that at least half of the members of this audience could budget seven thousand dollars to cover the necessities for three people. The point which accounted for the upset conditions in this family was not the fact of an income of seven thousand dollars but the interpretation put upon that income, for the decrease from twenty thousand dollars to seven thousand dollars can be just as pain-

*Dr. Davis held this position when the Institute was held in July, 1940. She is now instructor of speech in Brooklyn College in New York and is now Dr. Dorothy Davis Tuthill.

ful, if not more so, as from four thousand dollars to two thousand dollars. What seven thousand dollars will buy is not compared with what two thousand dollars will buy, but what the neighbors are buying that year with their twenty thousand dollars.

SPEECH AS AN EXPRESSION OF A BASIC PROBLEM

The second point in our discussion this afternoon is this: Speech comes into our discussion as one of the possible areas in which emotional maladjustment may express itself. Many times youngsters or adults present themselves to the speech clinic wishing to have their speech corrected when the speech is not the primary problem but simply a reflection of a much larger, more underlying problem which must first be solved. Each one of us is attempting to stabilize himself with respect to certain problems which we find facing us. We make use of whatever available tools we are familiar with. Many times individuals who are presented as speech problems have chosen speech as their tool simply because it was one which they recognized as a tool or which was more easily handled as a tool than some other avenue might be.

Let me illustrate for you what I mean in this connection. One time, a few years ago, a friend of mine who was in a position to give reading tests for the analysis of reading disorders was presented with a child as a possible reading case. Upon completing the examination she recognized that the child did not present a reading problem at all, but that his emotional maladjustment was pronounced. She had the choice of either telling the parent that he was not a fit subject for the reading clinic and allowing him to go home to whatever the future might hold, or explaining to the mother that she could register him in the reading clinic as a reading case but that his reading was not deficient. This clinician chose the latter course.

An understanding of the child, a study of the case history brought out

the following fact: Each summer for a period of years the child had gone north to avoid hay fever attacks. There was also a problem with an older sister who dominated him and a grandfather who supported her in her activities. This summer he was to attend a clinic within a hundred miles of his home town. There was little possibility that he could avoid hay fever that way. The question then was, should he stay in the clinic or should he go north where he could avoid his asthma and hay fever attacks? The mother chose to keep him in the clinic. Interestingly enough the child had no attack of asthma nor of hay fever until the night before he was to go home. Now what circumstances were present to account for a picture of that type? They were the appearance of the grandfather, who had no understanding of the child, and the appearance of the older sister who teased him. These two came with the car to take him home from the clinic. That night he had his only attack of asthma all summer. We see here then, that the problem for the child was not met by a reading disability, not by a speech disorder, but rather through attacks of asthma and hay fever. The hay fever and asthma were no longer used as tools when the problem was not present. As soon as the problem again appeared, the child chose the tool which he had found effective in the past for removing him from circumstances which were unpleasant for him.

SPEECH A TOOL TO AVOID UNPLEASANT SITUATIONS

I wish now to tell you about some illustrations in which the individual chose speech as a tool for removing himself from the situation which he found unpleasant. I might say this, that the idea that emotional maladjustments in connection with speech arise only in the area of stuttering is, of course, unfortunate. Any type of speech disorder may be an expression of an emotional maladjustment. It may be in the area of delayed speech, in the area of articulation, or in the area of repetition. For each one

of these the problem is similar. May I illustrate these points by choosing a few illustrations from each one of these three classifications of speech disorders and discussing them with you.

In the area of delayed speech there is an instance which comes to mind in which the child was referred to the speech clinic by the county nurse. The child at that time was six years of age and said only one word. I think we would all agree that we are discussing a rather severe picture of delayed speech. She was the oldest of a family of three, the others being two younger brothers, the youngest about three years of age. She was the father's favorite, being the only girl, and apparently got along rather well with both of the other youngsters. The mother was not too much concerned about the speech of the youngster and expressed the view on her first visit that the child would learn to talk when it was time and that she and the husband were not at all concerned about her language development. Unfortunately, I, as clinician, saw that there was a truly great problem to be faced and that the longer it was allowed to drift, the greater the problem would become. So I urged the mother to bring the youngster into the clinic once a week for a period of time to see if we could develop speech. I had available a fine clinician who chose to go at the problem through puppetry. The child refused to speak to either one of us when asked direct questions as to how she was or what her name was or any other such information. When presented with a puppet there was a possibility that in time she might learn to talk with the doll or talk to the doll. The program was commenced, but unfortunately the child contracted whooping cough after about one month, so the entire program was tabled.

Before going further with this story let me tell you something about the mother. In discussing the background of the child with me she assured me that the child was understood on every score. No one had ever attempted to nag her because she did

not talk, no one had put any pressure of any sort upon the speech function so that speech might possibly be undesirable. There was, of course, nothing to do but to believe the mother since it was impossible to have a moving picture of the past of the child. (Yet the clinician can't help seeing certain things which may be entirely contradictory to the verbalization of the parents giving the case history.) Upon the completion of the case history and the speech examination, the mother rose to go and said to the child, "Say goodbye to the lady, Dear, hurry up; say goodbye." The younger brother chimed in with suggestions of the same sort, tugging at the child's sleeve to reinforce his comments. The child did not respond. Such behavior is an extensional definition of "nagging," regardless of the evaluations of the mother.

Let me tell you the rest of this story. The mother seemed incapable of translating what we had discussed as the results of nagging a youngster to what her behavior with that youngster was. After the whooping cough she simply kept her at home. The child went to school in the fall. She said not one word to the teacher or to any other child in the room. One and a half years later the mother brought Joan, now seven and a half, back to the speech clinic and said, "May I have help for this child?" The child at this time was presenting a type of inhibition which one seldom encounters; fortunately, I may add. She had reached the stage of withdrawal in which she refused to show by facial expression that she had been spoken to. She was in the clinic for a period of three months before even babbling was heard. The possibilities of developing normal speech in a child of this type rest, of course, not with the number of speech drills nor with any type of urging that she express herself but with a complete readjustment of the home situation. Unfortunately that is many times impossible to do, and the only hope for the child is that her environment may be so broadened through school contacts or other contacts outside the home that she recognize the efficacy

of speech as a tool for use in a communicative sense.

A second illustration that comes to mind in this connection is that of a boy of about twelve whose speech is very much delayed. He presents baby talk of a type that we find undesirable in a boy of twelve, and in addition he is capable of making every sound perfectly. One immediately wonders why a child of this age who is being constantly embarrassed and teased about his speech would persist in using infantile speech when he is capable of using adult articulation. Let us look at his background. We find that he is the child of a broken home. The mother has kept the boy and has stabilized herself emotionally through the boy, but she has overlooked the fact that even though she has provided certain material goods for him, she has not stabilized him emotionally. The situation in which she has put the boy is very difficult. All the information known about his background is indeed unfortunate, and the boy himself is aware of these factors. Again we find speech used as the tool for the expression of an underlying problem and once again we might say

categorically that speech retraining is not to be gained through drill, but rather through a readjustment of the personality of the boy.

UNDERLYING PROBLEMS OF A LARGER SCOPE

I should like to discuss with you now certain other articulatory disorders of this type which reflect underlying problems of a larger scope. I can call to mind a man of twenty-eight who stepped into my office just last summer. He told me that his life was being wrecked by his poor speech. He talked in some detail along this line. After about five minutes of conversation I stopped him and asked him what his specific speech difficulty was. All of the time that he had evaluated his problem for me I was not able to detect anything unusual about his speech. It occurred to me that he might possibly be a stutterer who under the circumstances found it relatively easy to speak and so was not having any difficulty. The gentleman told me that he was incapable of pronouncing the sound which we associate with the letter "l." His seemingly good speech was the result of very clever manipula-



DR. DAVIS WORKING WITH A CHILD IN THE INDIANA STATE TEACHERS COLLEGE CLINIC

tion of vocabulary so that he was never called upon to pronounce a word with an "I" in it. He stated that the most important thing in the world to him right then was to have adequate speech. Now let us pause a moment before we proceed by tongue drills or any type of articulatory exercise to give the gentleman an "I," for a slower look at the situation.

It does seem a bit unusual for someone twenty-eight years of age to have exactly these reactions to speech. Perhaps there is a background which we do not recognize at first sight. Since the time was short it seemed impossible to go into a long case history of the individual, the summer sessions being almost over; so during the succeeding two days there were two twenty-minute practice periods on the formation of "I" sound. At the end of the second session the gentleman had learned the "I" sound. One would think that if his story were correct, his problem was solved with that achievement. It is at this point that the story unfolds to show us the underlying problem for this gentleman. The third day he came back. Bear in mind that on the second day the speech had been corrected; one would assume that on the third day he would be happy. Instead of a solution of the fundamental problem the expression of the problem had been changed. The crutch, the tool which he used, had been removed and suddenly he found that he was faced with a new situation. The third day he came back to report that even though his speech was now adequate he could not enter social situations because of hay fever. He felt that it was very impolite to be seen blowing one's nose publicly.

What happened in this picture? One tool had been removed and another had been put in its place. He had chosen very wisely in picking hay fever, for this is the sort of disorder that many times can be effected by the emotional state of the individual and his desire to escape some situation. Since the time for dealing with the individual was very short, it seemed that we had best talk

about some of the factors that had operated in his past to see if we could not clear up the problem at its root. He told me a good bit about his past and there was every indication to explain why speech and then hay fever should have been chosen as tools. I drew from him the relationship between his hay fever and the problem. The fourth day he returned, having chosen a still better tool than the one he had chosen on the two succeeding days. He chose a tool which I was powerless to change for him and that was his stature. He told me that it was shameful to him to go to a beach because there people observed his very slight build. May I mention that there was nothing at all abnormal about the build of the individual under study and yet by choosing build and evaluating as he had he placed himself in a situation where his evaluation must be changed before anything could be accomplished. Certainly I could not change this factor. Here then, we find a problem that expressed itself in three ways, speech, hay fever, dislike of one's posture; all of them representative of an underlying problem. I feel that this case history illustrates rather specifically what may happen when we content ourselves with retraining of speech and speech only, if speech is simply a symptom of a far greater underlying problem.

We are not always able to see what tool the individual will use next as clearly as we could in the illustration I have just given, and yet if we removed the speech symptom and it was being used for stabilization purposes, we can expect to find the individual striking out in some other direction. Miss Pankaskie has already mentioned to you the story of Clifford and his problem. He is an illustration for further consideration this afternoon. We could almost predict the type of speech disorder which Clifford would show. His speech was inaccurate and mumbled and his behavior was that of a browbeaten individual. His speech was mumbled because his chin was sunk on his chest in an aspect of physical dejection. His speech, then, was a reflec-

tion of an entire mood, an entire evaluation of the things that had happened to him. He could not be dealt with simply by saying "Now we want nice clear speech, Clifford; see if you can do it." Of course he couldn't when the situation was such.

STUTTERING

Now let me draw a few illustrations from the area of pathological repetitions or stuttering. We have some recent research at hand which shows that repetitions in the speech of young children can not be divorced from the situation in which they occur. Let us stop one moment and see what the importance of a statement of that type is. In the past we have sometimes assumed that repetitions were found in the speech of some individuals and not in the speech of all individuals. That repetition with a certain amount of stress and strain associated were abnormal counterments of speech. Research which I am mentioning to you shows that all pre-school age children repeat. A repetition is, then, not an abnormal development in speech but a characteristic of normal speech. We find, also, the idea that children repeat because they are unable to handle language as a tool; that is, the actual manipulation of compound or complex sentences or phrases or large vocabularies or small vocabularies has no relationship to the amount of repetition which may be found for that child. Repetitions were found to relate themselves to situations in which the child was. In the pre-school in which the research was done, it was found that most usual situations in which repetitions were apt to occur were those in which the child was excited over his own activity, in which the child was trying to direct the play activity of a group of children, or in other instances in which the child was trying to ostracize a second child from the game in which both were playing.

All of these situations have an evaluation; an unfortunate evaluation so far as the child is concerned.

The tool that has been chosen for the expression of that evaluation of the situation is speech. It might just as well have been a tantrum or nail biting or any other number of possible expressions of lack of adjustment in a given situation. Many times we find repetitions of a more extreme nature associated with any type of factor that may appear in the background. I can think at this moment of a home in which the father and mother were constantly at swords' points. It was not my privilege but my duty, shall we say, to eat a meal in that home and discuss with the father and the mother the problem of the child's speech. The speech of that child could not be handled until the father and the mother had mutually agreed to make the environment in which the child operated one in which there was less tension and strife. The stuttering on the part of that child was an expression of her reaction to the environment in which she found herself.

Now I suspect that at this point there are a few members of the audience who are saying, "Yes, that's true of the illustrations that have been chosen but of just how many people is this true?" May I say that the point which we have been making this afternoon, that all people are the expression of their pasts, is true of all people; it is not reserved for the select few. We are not talking about the one child in a hundred thousand. We are talking about a hundred thousand out of a hundred thousand. True, many of the children do not present as grave problems as those which I have chosen as illustrations this afternoon. The illustrations were chosen with just exactly that point in mind; that they be so clear-cut, so dramatic that none of us would be left with any question of the point that was being developed. Therefore, we might say that the illustrations were chosen for clarity, not because they were sporadic instances. Again we might say that each one of these cases which I have mentioned to you appears dramatic because it has been telescoped into a few sentences to relate to you here.

A great deal of research in the backgrounds of each one of these children has been summarized in one short sentence. If it were possible, I could present these children to you this afternoon, having them walk across this platform, perhaps followed by their parents, and I doubt if any single one of those individuals would be a cause for a spectacular notice. In fact, they would look exactly like the thirty children who sit before you each morning during the school year. The drama so far as the illustrations are concerned, arises only as a result of pulling out a number of factors and seeing how they fit in a certain puzzle. That is, as nearly as we can, without having the opportunity of living over certain pages of the past with them.

CASES REPRESENT ALL OF US

The third point which I should like to make in this connection is that we are again talking not about a few extreme cases but about individuals that are indicative of a pattern for all of us. The characteristics which I have been discussing may be found in the lives of every one of us here in this audience, but we distribute ourselves on a "continuum." We do not have the "adjusted" in one group and the "maladjusted" in another group. We know that each one of us has our areas of maladjustment. There is no truly adjusted person. He is simply a statistical concept. Each one of us presents very small areas of maladjustment which still allow us to operate within what is known as a normal range of behavior so that we do not cause society concern. We do not consider ourselves psychological problems. At the same time each one of us shows in miniature many of the characteristics which in some cases become so aggravated as to demand help for the individual from outside sources. If we can bear in mind, then, that this whole discussion is centered around not just a few children but about all children and all adults, I feel that we will look at people and their behavior with, what we might call, "more widely open eyes." You may be wish-

ing to ask how you, as a classroom teacher, can apply these ideas. The one thing that is required is not a great deal of book learning, but the ability to be objective so far as your consideration of other people is concerned.

You cannot help commencing to build the mosaic picture of an individual's behavior so soon as you recognize the potency of certain factors in the past. Such a view implies that you will take an attitude of saying, "Here is a certain type of behavior; can I say of this individual 'he is what he is, not because he wants to be a poor reader, not because he wants to have a speech disorder, not because he wants to be a problem in my classroom, not because he wants to be a delinquent so far as the courts are concerned, but because he is choosing the only possible tool that was available to him as he saw the situation.'" With such a viewpoint we place ourselves in a position to be helpful to the individual, for instead of saying, "You should not have done this," or, "I am ashamed of you for doing such a thing," we approach the problem anxious to discover why the individual does what he does. When we understand the "why" of his behavior not his "I yam what I yam" but "I am as I am" because of certain factors, we are in control of the situation. We can point out to him why the tools he has chosen are not the wisest tools for settling the problem. This is the nucleus of a good bit of clinical psychology and much of it you can use in your classroom if you adopt the principle with which we started, that each individual, each child in your classroom, whether he has a speech disorder or not, presents to you behavior which is a natural outgrowth of his own past, and in many instances he has done the only thing that he could do to stabilize himself in his environment as he evaluated it.

With this principle in mind, each one of us can add to the understanding of the causes and the retraining needed specifically for a given speech

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The Ophthalm-O-Graph and Metron-O-Scope Evaluated in the Light of Recent Research on the Psychology of Reading

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Raymond Dodge, in 1900, originated the photographic method of recording eye movements. Many eye movement cameras have since been built by workers in laboratories throughout the country and literally hundreds of theses and articles have been written reporting the results of studies made. Of the findings relating to the psychology of reading, easily the chief one is that good and poor readers can be differentiated on the basis of the pattern of their eye-movements. In terms of the four measures which it is customary to identify, the following differences may be found. Good readers make few fixations per line, few regressions, their pauses are brief, and their total perception time is small.¹ Just the reverse holds for poor readers. They require many fixations per line, many regressions, the duration of their pauses tends to be long, and now the total perception time is long also.

Seizing upon this finding, James Y. Taylor and Carl C. Taylor at Educational Laboratories, Inc., Brownwood, Texas, set about shortly before 1932 developing a portable eye movement camera with the point of view of providing an instrument by which

it would be practicable for the schools to measure reading ability of pupils on a scientifically objective basis. The instrument has now been perfected and duly patented. It is sold by the American Optical Company, Southbridge, Massachusetts, under the trade name of Ophthalm-O-Graph together with a companion instrument known as the Metron-O-Scope. The Metron-O-Scope also takes its cue from the fact that the eye movements of good and poor readers differ. Essentially, it consists of a tachistoscope with three horizontally arranged shutters which open and close in succession exposing the line in three sections in a left to right direction. Its object, to put it plainly, is to make good readers out of poor ones by making the eye movements of the latter more nearly like those of the former, the assumption being that eye movements cause good and poor reading.

The purpose of the present paper is to evaluate these instruments in the light of recent research on the psychology of reading. The instruments are costly and they are being promoted by their sponsors with considerable vigor. There is need of a statement such as we propose to supply.² The average teacher usually is not prepared to evaluate the instruments herself.

²Miles A. Tinker has prepared a somewhat similar statement directed to optometrists, among whom representatives of the American Optical Company have stimulated considerable interest concerning the possible

OPHTHALM-O-GRAPH

RELIABILITY AND VALIDITY OF THE OPHTHALM-O-GRAPH

How reliably and validly does the Ophthalm-O-Graph measure reading ability? Here we can consult the results of a study recently conducted by Imus, Rothney, and Bear,³ part of which deals with just this question. These workers secured Ophthalm-O-Graphic records on 636 students of the class of 1940 of Dartmouth College. The photographs were made in strict accordance with the conditions prescribed by the sponsors of the instrument. Three scores were plotted from the records of each student. They were (1) fixation frequency, (2) regression frequency, and (3) speed of reading.⁴

clinical uses to which the instruments might be put. His remarks, for the most part, are pertinent to the purposes of the teacher also. The reference is as follows: M. A. Tinker "An Evaluation of Eye Movement Measures for Optometrists," *American Journal of Optometry*, XV (January, 1938), pp. 1-5.

³H. A. Imus, J. W. M. Rothney, and R. M. Bear, *An Evaluation of Visual Factors in Reading*, (Hanover, New Hampshire: Dartmouth College Publications, 1938), pp. 1-144.

⁴No measure of pause duration could be computed because the Ophthalm-O-Graph does not provide for a time line on its records. The records will, however, yield a measure which, for all practical purposes, is the equivalent of total perception time. That measure is total reading time. In the Dartmouth study, total reading time was translated into a measure of words read per minute, i. e., speed of reading.

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To determine the reliability of these scores, the Dartmouth workers used the method of computing correlations between test-retest findings. The correlations obtained for the three measures ranged from .59 to .72, too low for the purpose of individual diagnosis. Two reasons account for the fact that the correlations were so low: (1) the selections which were furnished with the instrument at the time were too short, being only fifty words in length apiece; and (2) the questions which the sponsors supplied to test the subject's comprehension of the selections could too largely be answered correctly without a reading of them.

Is low reliability a necessary limitation of the Ophthalm-O-Graph? Presumably, it is not. Longer selections could be used and the comprehension tests made more rigorous. In that case the reliability coefficients should be higher. The length of selection which it would be necessary to employ to obtain correlations of .90, the usually considered minimum low for individual diagnosis and placement, has not yet been actually demonstrated⁵—at least not in a situation where the correlations were secured by the test-retest method, which would be the most satisfactory one to use. None of Tinker's⁶ correlations reach the above figure, and his selections were long. Findings on twenty-three versus twenty-three lines of easy prose were correlated in one case and on thirty-eight versus thirty-nine lines of difficult prose in another. Yet the highest correlation which he reports is only .88. That figure is for fixation frequency in the case of the easier material. The average of his correlations for

⁵The Dartmouth workers made a statistical calculation, based on the Spearman-Brown prophecy formula, which indicates that a selection approximately five times as long as the ones that were used would be needed to obtain a test with a reliability of .90.

⁶M. A. Tinker, "Reliability and Validity of Eye Movement Measures of Reading," *Journal of Experimental Psychology*, XIX (December, 1936), pp. 732-46.

all measures for both levels of difficulty is .82. Apparently, quite a lengthy selection is going to be required to give us the reliability we want. Theoretically, however, we should be able to attain it.

The validity of the eye movement scores, in the Dartmouth study, was determined in terms of the correlations which existed between them and total comprehension scores on the Iowa Silent Reading Test. The correlations obtained turned out to be low, being only .40, .25, and .52⁷ for fixation frequency, regression frequency, and speed of reading, respectively. The meaning of this finding is clear. The eye movement scores and the Iowa Silent Reading Test are not measuring the same ability. Does that fact prove that the eye movement scores are invalid? The answer must be in the negative. The reason is that the conditions were such as not to make for high correlations. High correlations between two measures of reading ability can only be secured when the materials concerned are strictly comparable and call for the same type of reading. In the Dartmouth study neither of these conditions was met—hence, the low correlations.

Is there a study in which the essential conditions have been met? Tinker's above-cited study seems to answer the purpose. By using two selections of fourteen lines each from the Chapman-Cook Speed of Reading Test as the selections to be read before the camera and scores on the entire test as the criterion, he took into account the requirement stated above. His correlations, when corrected for attenuation, ranged from .80 to .99 for fixation frequency and from .87 to .90 for total perception time. Low correlations were reported for pause duration. They ranged from .10 to .51. No correlations were reported for regression frequency. The type of reading which the Chapman-Cook Test requires makes it difficult to measure regression frequency accurately. The results of other studies

⁷Corrections for attenuation would not raise these figures to a significant point. The reliability of the Iowa Silent Reading Test is high.

indicate, however, that regression frequency, at best, would be a measure of only fair validity.

SUMMARY

We may summarize as follows: (1) The Ophthalm-O-Graph, if used with the selections which were being distributed with it at the time that the Dartmouth Study was conducted, will yield unreliable records. Presumably, however, low reliability is not a necessary limitation of the Ophthalm-O-Graph. If used with selections of suitable length, assuming also that the student reads to understand, it should yield records of high reliability. (2) When properly determined, the validity of the technique should be found also to be high. There is nothing spurious about Tinker's correlations for fixation frequency and total perception time. Either or both measures could be used with confidence. We assume, of course, that the selection read before the camera is now long enough to yield scores which are also reliable.

Let us suppose that the Ophthalm-O-Graphic technique has been modified and now meets the ideal requirement. Would it then become *the* measure of reading ability? The fact is that it would still not yield much more than the equivalent of what a good standardized reading test would yield. Since the former will have been validated on the basis of the latter, the two would be measuring essentially the same ability. Consider the advantages, however, of using standardized tests to measure that ability. They can be administered to large numbers of children at once, they are easy to handle, and they are relatively inexpensive. The Ophthalm-O-Graphic technique, on the other hand, is an individual affair, it requires the services of a technician, and it is costly. The unpersuaded, while granting all of this, might still argue that there are certain types of information that can only be obtained from photographs of eye movements. They would contend, for example, that a record of the frequency, location, and duration of pauses gives important information concerning special difficulty in vo-

cabulary and that the photographs yield a measure of the accuracy with which the return sweep is made. The writer contends that the same information can be obtained by simpler means. Three things the writer will grant: (1) To have his eye movements photographed and to see a record of them afterwards interests and motivates the child. That is all to the good when it comes to remedial work. (2) Eye movement records can be used to detect occasional cases of binocular visual anomaly. (3) The Ophthalm-O-Graph has certain uses as a research instrument. But even these points cannot pass without some qualification. One does not need to resort to eye movement photography to interest and motivate the child. There are other and less extrinsic means for achieving that end. The use of an eye movement camera to detect binocular visual defects is beset with uncertainties, as anyone familiar with the camera technique and functioning of the eyes should know. To use it for that purpose would indeed require an experienced and expert worker. And finally, the fact that the Ophthalm-O-Graph is equipped to record only horizontal movements of the eyes, and that it does not provide a means for recording a time line and a head line, limits it as a research instrument.

METRON-O-SCOPE

So much then for the Ophthalm-O-Graph. Let us turn now to the Metron-O-Scope. We have space left for only a brief statement. Essentially, the situation consists of the following. Good readers make fewer fixations regressions per line than poor readers. In order to improve the reading ability of the latter, why not simply condition their eye movements to conform more nearly with those of the former. There is the way in which those who would use the Metron-O-Scope to improve reading ability reason. Our problem is to inquire whether that reasoning is justified. Are eye movements really the cause of good and poor reading?

Of studies which bear on this

question, perhaps those of Walker⁸ and Anderson⁹ are the most crucial. Since Anderson repeated with poor readers Walker's earlier experiment with good readers, the conditions of the two studies are identical and can, therefore, be presented together. The problem was to determine the way in which eye movements varied with variations in the difficulty of the material read. Three selections, increasingly difficult, were used as the test material. The selections were presented to the reader in order of difficulty, and eye movement records were obtained by means of the Iowa camera. All subjects were freshmen of the State University of Iowa, and the number in each experiment was fifty.

The essential results were two: (1) With each increase in difficulty there was an increase in the number of pauses, the duration of pauses, and the number of regressions on the part of both good and poor readers.¹⁰ (2) When compared for performance at any given level of difficulty, however, the good readers were still found to make the more favorable

⁸R. Y. Walker, "The Eye Movements of Good Readers," *Psychological Monographs*, XLIV (1933), pp. 95-117.

⁹I. H. Anderson, "Studies in the Eye Movements of Good and Poor Readers," *Psychological Monographs*, XLVIII (1937), pp. 1-35.

¹⁰In the light of this fact, it is difficult to understand how some writers can speak of "habits of eye movement." Eye movements respond in a highly modifiable fashion to changes in difficulty as well as to changes in reading purpose. The eye movements of good readers vary more according to these conditions than the eye movements of poor readers, it is true, but to speak of habits in the one case and not in the other does not seem consistent either. The fact is that poor readers tend much more than good readers to read everything with about the same mental set. It is a habit of mind rather than of eye movement which accounts for the failure of poor readers to vary their method of reading according to conditions any more than they do. Let them learn to orient themselves to the needs of various situations and their eye movements will change all right.

scores. The implications of these facts seem clear. Eye movements are symptoms, not causes, of reading ability. They merely reflect the ease with which the individual comprehends what he reads.¹¹ If the material is simple, he comprehends it readily and makes few pauses and regressions; if difficult, he comprehends it less readily and makes many pauses and regressions. This holds for both good and poor readers. The fact that the good reader might still make fewer pauses and regressions than the poor reader at any one difficulty level means only that the material is relatively easy for the one and difficult for the other. If we could give the poor reader material which is just as easy for him as more difficult material is easy for the good reader, the eye movements of the two should be the same.

Somewhat more specialized than the results of Walker and of Anderson are the results of Fairbanks' study.¹² They also point to the non-causal nature of eye movements. By means of an eye-voice camera, Fairbanks was able to photograph the eye movements and the sound waves from the voice in oral reading simultaneously on the same film. His subjects were forty-eight State University of Iowa freshmen. An analysis of the relationship between the words on which these subjects made oral reading errors and their eye movements provides the data which are significant for the present purpose. This analysis disclosed the following: (1) Lack of precision in fixating the words on which errors were made was not a cause of the errors because these words were fixated with as

¹¹Walter F. Dearborn has expressed this idea in a most neatly turned phrase. He speaks of eye movements as being "the involuntary tools of the mind." That is exactly what they are. The real measure of reading ability is comprehension. Improve the comprehension and the eye movements, left to themselves, will improve also.

¹²G. Fairbanks, "Eye Movements and Voice in Oral Reading," *Psychological Monographs*, XLVIII (1937), pp. 78-107.

great precision as were words upon which no errors occurred. (2) The initial eye movements to error words did not cause the errors because no difference was found between these fixations and those made to the same point by subjects who made no error on the words. (5) Regressions were the only measure of eye movements found to be related to oral reading errors, but since approximately 80 per cent of these followed the errors temporally, they cannot have caused the errors. They were made for the purpose of correcting errors of which the subject had subsequently become aware. These facts when combined with Swanson's¹³ findings provide the data for our conclusion that eye movements do not cause good or poor reading.

Still a third type of evidence, different from either of the other two types already considered, can be brought to bear on our problem. We refer now to the results of studies by Anderson and Fairbanks¹⁴ and by Young.¹⁵ Anderson and Fairbanks tested 220 university freshmen to determine the relationship between reading vocabulary and hearing vocabulary. One form of the Inglis Tests of English Vocabulary was used to test reading vocabulary, while an alternate form was recorded phonographically and used to test hearing vocabulary. The correlation between scores on the two tests was found to be .80 (corrected for attenuation, .95). Not only was the correlation high, but the difference between group means was only that between ninety on the test

of hearing vocabulary and ninety-two on the test of reading vocabulary. Vocabulary ability seems to be a centrally determined function which operates independently of the method of presenting the material; and since comprehension (understanding the meanings of words) is the factor common to both measures, it must account for the close relationship between the two. This conclusion is not to be confined to vocabulary ability alone. Young found a correlation of .80 (corrected for attenuation, .90) between the abilities of elementary school pupils to understand and retain read and heard *contextual* material. In the light of these findings, it seems no more reasonable to speak of eye movements as causes of reading comprehension than it would be to account for hearing comprehension on the basis of "ear movements."

SUMMARY

There is no need further to multiply evidence. The fundamental limitation of the Metron-O-Scope (and similar devices) must by this time have become apparent. It has no control over those factors which ultimately make for good comprehension,

¹⁶It might be well to elaborate this point because it presents what to the writer seems to be the one possible psychologically sound case which can be advanced for the Metron-O-Scope. The Metron-O-Scope, by holding the fixations to a limited number, presents a situation in which the reader, if he is to grasp the exposure units, must learn to perceive the material on the basis of fewer fixations than the number to which he has become habituated in his normal reading. This statement of the case for the Metron-O-Scope is different than the one usually given, which is that it trains habits of eye movement. Our statement is in terms of its training habits of mind instead. The eye movements are merely held constant. The change, if the new demands are to be met, must occur in the mind. Now, however, we encounter another limiting condition of the Metron-O-Scope. It is so artificial in the situation which it presents that there is considerable question whether such habits of perceiving as might be developed will actually transfer to the individual's normal reading. It was

i. e., intelligence, experience, and vocabulary. It controls only the eye movements. What such a control can accomplish in the way of improving comprehension is extremely limited. About all that can be hoped for is that the training will succeed in teaching the individual to read in larger units and to react to the words more quickly.¹⁶ The comprehension will remain as shallow as it was before. To make the eye movements of the poor reader like those of the good reader does not mean that the two will now comprehend alike. Had there been any chance for that to begin with, there would have been no need to train the eye movements. They would already have been alike. We do not intend to deny that there is some place for the Metron-O-Scope in the reading program. It has about the same place that flashcards do.¹⁷ Whether either is any better for the purpose than extensive reading of copious amounts of easy material is a question, however. Surely, most attention in the reading program will still be given to the conceptual aspects of reading. The more skillful the teacher the more will that be found to be so.

in the hope that at least this limitation of the Metron-O-Scope could be overcome that Walter F. Dearborn and the writer developed their film technique of controlling eye movements. The films present a much more realistic reading situation than does the Metron-O-Scope. Both techniques suffer the same fundamental limitation. Of that we have spoken above.

¹⁷We should speak also of the effect that the Metron-O-Scope has as motivating the individual. Because of its novelty and promise of quick success, it is well suited to do that. The writer would contend, however, that in her teaching of most children the skillful teacher will find no need to resort to such an extrinsic device to motivate them. Only in unusual cases might anything like that be necessary. Then, even the Ophthalm-O-Graph might be useful. What the writer finds it difficult to justify is the idea that the two instruments are indispensable to the schools, in general. Their uses are far too specialized for anything even approaching that idea.

¹³D. E. Swanson, "Common Elements in Silent and Oral Reading," *Psychological Monographs*, XLVIII (1937), pp. 36-60.

¹⁴I. H. Anderson and G. Fairbanks, "Common and Differential Reading Vocabulary and Hearing Vocabulary," *Journal of Educational Research*, XXX (January, 1937), pp. 317-24.

¹⁵W. E. Young, "The Relation of Reading Comprehension and Retention to Hearing Comprehension and Retention," Unpublished Doctorate Thesis, State University of Iowa, 1930.

What Can We Teach about Motion Picture Appreciation?

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We have just seen the history and development of the motion picture from the time it was a crude, inartistic dumb-show to the time when it found its voice and began to take on the semblance of an art.¹ Today, of all art forms, it is more viewed than any other. Now what should we as teachers do to send our millions of children, who make a large percentage of our picture audience, to see the better types of film plays and to enjoy artistic entertainment rather than that which is artistically poor? We cannot approach our problem in the way that we teach dramatic appreciation, that is, through actual work in play production, because facilities for the production of talking pictures are, of course, not available to us for use in the schools. What can we do?

First of all, be aware that the film is quite different from the play. The whole technique is different, and tests usually applied to dramatic production will not hold. But regard for the film as an art makes it possible to apply tests which function on all products of art. What esthetic elements are present and how effectively have they been put to use?

A choice of only the main principles of esthetics will cause us to consider unity, coherence, variety, balance, contrast, and rhythm as they are apparent in the use of color, line, mass, and sound. Careful definition of these terms with examples supplied

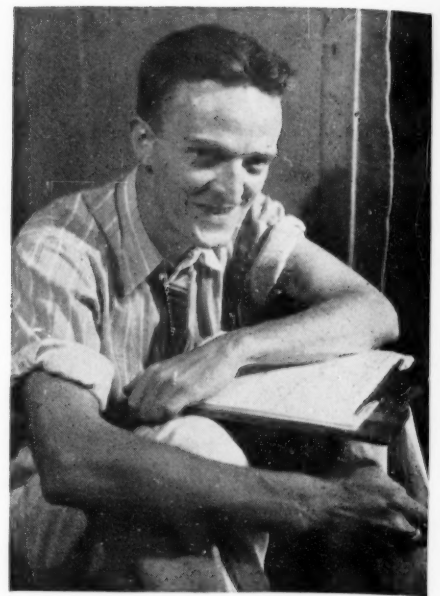
¹The March of Movies, No. 5002, Bell & Howell, Chicago, Illinois, \$10 rental fee, runs 60 minutes, showing origin, development, and perfection of the motion picture.

of successful adherence will teach children a better discrimination and taste which should cause them to have greater enjoyment at the same time that their standards of appreciation are raised.

Children automatically recognize the properties of color, line, mass, and sound in such a tangible thing as a moving picture, but do they see the esthetic principles applied to produce an artistic effect, or recognize the effect as an artistic one? Let us see how the movies incorporate some of these basic principles of esthetics and arrive at the form of art which the films have, in some instances, succeeded in attaining. These are the sort of films and the sort of esthetics which we can teach the children to appreciate.

UNITY

Certainly unity is important, but it is seldom that a moving picture is analyzed to the point of discovering whether or not it has an obvious unity. An outstanding example comes to mind, however, when we recall the picture *Stagecoach*. This closely knit drama involved the destinies of six people on a coach journey. The unity was so complete that few in the audience realized the minimum span of setting, nor did they grasp the close assembling of six different life stories into one theme. One might go scholarly and say that this picture embodied the Aristotelian theory of unity, for it had a beginning, a middle, and an end. The wayfarers began their dramatic journey from a given point, they traversed with the mounting interest of the story, and the de-



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nouement and climax came with the destination, the end.

COHERENCE

A story coherently pictured makes for art in novel, play, painting, or picture film. Often we are disturbed by a film which snags along in episodic style, drifting away from its theme whenever a novel opportunity presents itself to drag in a spectacular or unusual scene. On the other hand, we are often unconsciously pleased and pleasantly satisfied by a picture whose story comes to us with crystal-like coherence. Take, for instance, the dramatic moving picture *Rebecca*. Here was a story so well told from beginning to end that we never once lost the thread of that menacing figure, Rebecca (in spite of the fact that she, herself, was never seen). A movie which might have been wildly incoherent because of its strange inter-workings and fragmentary scenes was *Our Town* which came to the screen in a clear, never-faltering continuity of thought and action.

VARIETY

The important esthetic principle of variety might be said to be "easy" for the films. At least they have all possible facilities to give some sort of variety to their productions. However,
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How Radio Can Vitalize the Language Program

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Our subject this afternoon is, again, of such large scope that it becomes necessary to examine the meaning of the term radio, recall to our minds the definition of "Language Program" which we talked about last night, and see what we mean by the term vitalize. According to Professor Ewbank of the University of Wisconsin in an article which appeared in the April number of our professional publication, *The Quarterly Journal of Speech*, the radio industry has advanced with tremendous rapidity. Although commercial broadcasting is only nineteen years old in this country, today we have 715 broadcasting stations and 35,000,000 receiving sets. Eighty-five per cent of our families own at least one radio, and that radio is turned on for 4.2 hours on the average day. In 1958, someone estimated that if all this listening were laid end to end you would have one billion person-listening hours a week or six and one-half times the number of listening-and-looking hours spent at the movies. When one considers that 50 per cent of the time the listeners hear music and the other 50 per cent spoken words, we, as teachers in the language arts field, can see implications which apply to our own jobs.

All over the country, in universities, colleges, teachers colleges, and some high schools, we are hearing about educational broadcasts. Here at Indiana State Teachers College we find a fine example of the work which educational broadcasting is doing. Dr. Clarence Morgan (who should be making this talk) reported in 1937-1938 and again in 1938-1939

the results of programs which had been released over a commercial station, WBOW, an NBC affiliate, here in Terre Haute. He reported that the educational radio program of I.S.T.C. has presented more than 425 programs during this past year totaling about 8500 minutes on the air which, if they had been paid for at commercial rates, would have cost more than \$12,000. The range of these programs has extended from such homely matters as a spelling bee to more serious programs: *The Terre Haute Town Meeting of the Air*, the news programs, sports reviews, a state fair broadcast, and a long series of educational broadcasts in particular subject-matter fields. In the English series such stories as *Luck of Roaring Camp*, *Penrod*, *Heidi*, and *Fall of the House of Usher* were presented. The home economics series discussed manners of modern youth, a buying program for consumers, and fashions in season. Safety in driving and in the home was discussed in eight or nine broadcasts. In a science series Dr. Allyn of the science department of the college carried on a regular weekly talk in which he discussed such problems as pest-control, weed-eradication, what to do for mad-dogs, and what the weather was going to do for us. Dr. Allyn's program to remove the danger of malaria by treating the swamps in and around Terre Haute was an outstanding piece of educational broadcasting which resulted in a drop from one thousand cases a year to seventy-five cases of malaria in this territory during the past year. The music department presented a

series of programs, instrumental and vocal, and in addition gave biographies of such men as Mozart, Beethoven, Schubert, Brahms, and so on. Other departments co-operating in this educational broadcast program were social studies and English. Members of Dr. Morgan's course, Radio Workshop, carried on several regular weekly "shows": Question-and-Answer program, which was planned to challenge an adult listening group; Open Forum, a game program; Interviews; and Drama which the Radio Workshop students produced most ably. The Wabash Valley Series took Indiana State Teachers College to more than fifty different Wabash Valley towns or brought high school students from those towns to the studio to put on programs of speaking, singing, and drama. At least fifty-five sport broadcasts were carried on, and the Radio Clinic which demonstrates various educational broadcasting techniques has become an annual affair here.

HOW MANY LISTEN?

The question occurred to Dr. Morgan as, perhaps, it has occurred to you: Is anybody listening to these programs? To answer that question he set several master's candidates to work on a survey here in Terre Haute and the surrounding area. They discovered that during the day the average listening audience of Station WBOW was three hundred sixty thousand; that during their evening program, particularly on network broadcasts, the audience reached about six hundred thousand. At least 40 per cent of the population of Terre Haute and the near-by area kept tuned to WBOW exclusively. Another 20 per cent was tuned to that station most of the time except for tuning certain favorite programs on other networks. The many listeners who sent in comments by phone, by cards, by letters, and by personal conversation with Dr. Morgan indicated that the educational broadcast's audience was a large and faithful one.

These general facts and this specific illustration indicate that radio, whether we will admit it or

not, is playing a large part already in our school program. Assuming, then, that the language program needs additional vitality, the use of the radio approach to reading, talking, writing, and listening will provide new motivation, new standards of evaluation, and new activity techniques in the classroom. Most of us, however, are not as fortunate as Dr. Morgan in that we do not have a studio available in our schools. We do not have available a commercial station to provide an outlet for radio programs, assuming that we could get our students interested in producing them. We do not have a listening audience of three hundred sixty thousand people waiting to hear what we are doing in our own particular classroom. In addition, most of us are not blessed with a school board willing and able to spend the necessary hundreds or thousands of dollars for equipment to record programs, to use public address systems, or to get on the air in any way. What then can we do?

Perhaps I can answer that question in part from my own experience. The first time I attempted to use radio in a classroom I had no equipment and no particular knowledge, except as a radio listener. I did, however, have an office opening off of my classroom. So when some of my students wanted to do a radio dramatization, we decided to try to produce a dramatization of a short story we were studying in American Literature. We spent two days talking about the differences between radio and plays, between radio and the movies, between radio and "speaking pieces." We did some listening on a small radio set to a play which was going on. Then we cast a radio show, sent the students into my office, closed the door all but a crack, and the rest of the class listened to the invisible troop of performers. Crude? Undoubtedly, a primitive form of radio program. Satisfactory? Undoubtedly, very satisfactory to the participants. The next step was to rig up a microphone with our sound movie camera, put the microphone in an office, rehearse and produce a radio script which we had

found in an issue of *Scholastic* magazine. Hot discussions followed the initial productions of this play. The members of the class who had acted as listeners had comments, vigorous, and sometimes justifiable, about the diction, the voice quality, the clearness of enunciation, and the general understandability of each member of the cast. We worked this "show" over and over again. When we had finally perfected it to the limit of our ability we presented it at some of the town service clubs. The program was as novel to them as it had been to the students originally. Somehow the microphone acted as an invisible and unmentioned motivator. Somehow, too, the new situation in which they could not be seen, in which the pretty girls could not depend upon their new clothes or their attractive features to influence an audience as they had when they were just "speaking pieces," drove home to the students in general the different nature of communication by audible symbols alone.

EVERY ONE CAN DO IT

All of us can do this same sort of work. Yes. If we have a small radio, and 85 per cent of us do, and a dollar to invest in a small carbon microphone, and a radio service man in town who will hook this microphone up to a radio set so that it may be used as a public address system, any of us can do that same thing. We can carry on open forums, interviews, question and answer games, dramatizations; we can even give "pieces" over the air.

How does reading come into the picture? In such simple production programs as the one I have outlined it is possible to teach the student that reading words is not enough. He must learn to read via the microphone as though he were talking. Otherwise he will sound, as the radio people put it, "read-y." He will learn, too, that it is necessary to have in writing what one wishes to say over the microphone if he would be continuous in the flow of his auditory stimuli to the listener, or, to put it more plainly, if he doesn't want to get "mike fright" and just "freeze

up." When the student starts to write script for a radio show he will discover that he can't use long sentences, Latin-derived words, complicated style, general and vague terms. He will find, on the contrary, that his sentences must be short, crisp; his language, alive with action words which help the listener to visualize as he hears; his style concise, brief, and easy to follow. He will discover that he must repeat certain key ideas at least three times in a fifteen minute program. In fact, he will learn many things which teachers of writing have been trying to teach to high school students and college freshmen for years.

The activities which I have outlined as radio-approaches tending to motivate the students are only a phase of what we can do about radio. In the *English Journal* for September, 1938, page 556 ff., E. Tyler, in an article entitled "What Can We Do About Radio?" outlines some things which he believes to be important. He points out that in a survey of a number of students in large high schools, 61 per cent gave radio as a primary source of news events, 51 per cent gave newspapers as their primary source and radio as their secondary. He emphasizes that we assume reading to be a leisure time occupation when, probably, radio is more frequently so used. He suggests a program educating students to the possibilities of radio. Students should know who pays for programs, who owns the air, what the advantages and disadvantages of the American system of broadcasting are; they should know or learn to recognize propaganda and propaganda techniques coming to them over the air. They should be taught to recognize words which have strong emotional connotations which obscure rather than clarify meanings. Teachers can help them to find hidden assumptions upon which arguments are based. Another plea which Tyler makes is that we should develop definite programs of instruction in radio by using source materials from commercial programs in the school and out of school, getting from these large

broadcasting companies electrical transcriptions of some of their educational programs which are now available. He suggests that we might help students to develop critical discrimination by teaching them to analyze why they like what they like. His strongest plea, however, is that we become intelligent listeners. He suggests that we ask the various networks—Columbia, NBC, and Mutual—for their weekly bulletins for students, for their music guides, for the outlines of particular educational programs in our subject field on the level at which we teach. He suggests that we buy *Radio Guide* and keep track of the programs. In fact his plea for better listening was so strong that it led me to lay the major emphasis in the latter part of this talk upon listening.

Yesterday I quoted a table from the doctoral dissertation of Paul E. Rankin, University of Michigan, 1937, *Listening Ability, Its Importance, Measurement, and Development*, in which under three headings, Method of Communication, Use in Life (in per cent), School Emphasis (in per cent), he gave these figures: Four methods of communication—listening, reading, talking, and writing. Forty-five per cent of the time we use listening in life, school emphasis 8 per cent; reading 16 per cent, school emphasis 52 per cent; talking 52 per cent, school emphasis 10 per cent; writing 9 per cent, school emphasis 50 per cent. We discussed those figures last night; so it will not be necessary to elaborate on them now except to point out that the methods of greatest use in everyday living, according to his estimate, get the least emphasis in our school program.

LISTENING

Pauline K. Winkler in an article entitled "Psychology of Listening," the *Fifth Year Book of the Institute for Education by Radio*, Ohio State University Press, Columbus, Ohio, 1934, reports the results of questionnaires sent to fifty-eight psychologists and educators, forty-eight of whom replied. The majority agreed that listening was an active process. In general they suggested that the following

factors affect listening: interest, environment, delivery, style, and speed; content; attention; concentration; emotional state of the listener; how much the listener wants to know; speaker's personality; voice, choice of English, method of appeal, and authority. The people who answered the questionnaires made so many interesting suggestions concerning their own personal methods of listening that Miss Winkler and her teacher, Robert W. Frederick of New York Teachers College, made a "Guide to Listening" which they published in abstract form in the same journal. They begin with the premise that mental activity on the part of the listener is essential. They stress the point that by reading material about the topic and the speaker, discussing the topic in class, and thinking about various phases of the subject which the speaker might stress from his own position as authority in his field, they should prepare the students for what they expect to hear. They make specific suggestions of things the students listening should do during a speech over the radio, such things as: Looking for the main trend of the speech in the title and the beginning paragraphs; noting the important divisions of the speech,

listening by units of thought, that is, giving attention to ideas instead of words in which the idea is clothed, making a deliberate effort to get the speaker's key words, phrases, or sentences around each of which an idea is built. They further suggested that the listener should constantly associate the material heard with his own ideas and his previous knowledge on the subject. The listener should raise questions as to what meaning the speaker implies or what reasons he gives for making the statement. Students listening should be encouraged to challenge the speaker's statements by comparing them with previous knowledge and the views of other people. Occasionally a student should stop listening in order to make a rapid review when a speaker relates information already known or continues with an illustration when a point is already understood by the listener. They suggest, too, that a listener is aided by certain specific mental activities: by visualizing the scene described or visualizing particularly striking words and phrases; by mentally outlining the lecture in from three to five main divisions with a supporting statement or two under each division; or by jotting down a skeleton outline of the lecture



DR. C. M. MORGAN, DIRECTOR OF RADIO AT INDIANA STATE (EXTREME RIGHT) WYNN WRIGHT, NBC (NEXT) AND VISITING STUDENTS

if this is socially possible.

Again the "Guide to Listening" suggests that the listener should continue his thinking after the lecture. As teachers we can help him to formulate his own ideas on a subject in the light of what he has previously known and recently heard. We can help him to challenge a speaker's statements, test the speaker's conclusion, and discuss and read points which he questions or with which he disagrees.

A listener should notice what signs the speaker employs to indicate important points. He should watch for these verbal devices: Main divisions when the speaker is enumerating, transitions or changes in thought when a new idea is introduced. As language teachers we can help him to see that words like *besides*, *furthermore*, *likewise*, *moreover*, *accordingly*, *consequently*, *hence*, *therefore*, *nevertheless*, *etc.*, are *transitional* words. We, as teachers, can help a student to interpret figures of speech as dramatic devices of a speaker to call attention to an important fact. If we are good listeners ourselves, we can help our students to watch changes in sentence type which often call attention to important changes in facts or to important facts themselves. Always we should notice concrete examples which clarify and fix important points. If none are given, we as listeners should try to supply them. We should watch, too, for repetition as a method of selecting important points.

Are these devices which they suggest new? Certainly not. Any of us who have taught writing, composition, even grammar or certain rhetorical devices in a class in high school or beginning college rhetoric know that these are the common terms which we apply when we are trying to teach a student logic, grammar, rhetoric. These points of the trivium which we have thought of for some time as "old stuff" can become "new stuff" if we use them in a new medium such as radio. From the speech point-of-view, listeners should watch for vocal means of emphasis employed by the speaker. They may

check dramatic pauses and changes in quality and quantity of tone in selecting important points. Perhaps, also, we, as teachers, can help student listeners to notice the emotional qualities of the voice which forecast certain emotional connotations in the speech.

RADIO—A MOTIVATING DEVICE

Obviously, we have mentioned only a few of the possible uses of radio as a motivating device, as a device for setting up standards of evaluation on the part of the listener, and as a source of new activity techniques in the classroom. For additional information consult *yourself*. Most of you listening here today probably have ideas of your own on how to use radio in the classroom. Most of you know, too, that listening is one of the hardest of the methods of communication to teach. You are, of course, familiar with the fact that a listener cannot hold himself at a peak of alertness for any great length of time. You are perhaps familiar with some of the psychology back of the reception of auditory stimuli. Perhaps some you have read a booklet released by Columbia Broadcasting Company entitled *Exact Measurement of the Spoken Words*, a booklet which summarizes the results of twenty-one experiments reported in psychological journals all tending to show the superiority of auditory over visual stimuli.

I know, moreover, that you, as teachers are listening to NBC's *Great Plays from Athens to Broadway* and the equally important series from *The Columbia Workshop*. You are listening to the University of Chicago *Round Table*, to *America's Town Meeting of the Air*, *The People's Platform*, to the Radio debates, to *CBS Bull Session*. All of us, I am sure, have been hanging over the loudspeaker listening to the foreign broadcasts of the world today. Most of us here probably heard Jimmie Bowen tell about the scuttling of the *Graf Spee*; most of us have heard Hitler hysterically addressing the German Third Reich, or Chamberlain calmly arguing his point of view

in the House of Commons, or Winston Churchill vigorously denouncing the German Reich and lashing the people of Britain into war. All of you, I am sure, are taking advantage of short waves to listen to Lord Ha-Hau, to the announcers of British Broadcasting Company, to the short-wave broadcasts in English from Rome and South America.

No teacher, I am sure, would lose the opportunity to tell his students about the New York Philharmonic Symphony Broadcasts on Sunday afternoon during the winter, or the Saturday afternoon broadcasts of the Metropolitan Opera Company, or the Saturday night broadcast of Toscanini and the NBC Symphony, or Henry Weber's Symphonic programs over the Mutual Broadcasting System, or Frank Black's programs during the week over NBC. I am sure that all of you introduce into your classroom teaching illustrations from the radio as well as from the movies.

Those of you who are interested in library work have undoubtedly wondered whether there were broadcasts from the library and have found that there are from many of the city libraries. You have wondered whether the libraries were stocking transcriptions or radio programs and the written script of those programs. You have undoubtedly discovered that many large libraries are doing that. I am sure that most of you have written to the United States Office of Education, the Department of Interior, Washington, D. C., for its mimeographed releases, *Radio Manual* and *Radio Glossary*. I am sure that many of you know of the University of Chicago Series on Radio as well as the National Research Council, Committee on Scientific Aids to Learning publication entitled *Broadcast Receivers and Phonographs for Classroom Use*.

If, because of lack of motivation yourself, or lack of interest on the part of your pupils, or lack of knowledge and understanding of the tremendous importance of radio in education today, you have failed to do some of these things which I have

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The Teachers College Journal

Around the Reading Table

SEELY, HOWARD FRANCIS, AND HACKETT, ARTHUR WILLIAM. *Experiences in Speaking*. Chicago: Scott, Foresman and Company, 1940. 512 pp.

An informative and practical book which has the laudable objective of correlating normal speech activities with life environment is *Experiences in Speaking*. How other than through actual experience can anyone learn or appreciate the importance of oral expression in everyday life? Assuming this, the authors, Howard Francis Seely and Arthur William Hackett, have turned out a well-organized text which reveals the integration of speaking with life activities.

In the beginning, the book offers an insight into the role language plays—how and why we develop language skills, what language is, and the way we use it. Once given the reason-for-being of speech work, the student is next presented with the various phases of speech activity. Happily, the authors have accompanied each discussion with practical suggestions for real experiences and participation in specific areas of oral language.

Taking the "day by day" topic as the basis for the first section of the book, the student and teacher go hand in hand through the natural, daily speech life. Conversation, its uses and exercises for improving its effectiveness, is given a place of prime importance. Next the authors present a discussion of "we talk informally." Here one finds stimulating treatment and fine suggestions for giving the student many guided experiences in that most-used field of oral expression—informal talk. These experiences are related to informal conversation as it appears in class discussion, talking on the telephone, introducing people, conducting interviews, and selling.

"From the beginning of recorded time, human beings have enjoyed telling stories and listening to them." With this, the authors introduce the section on story telling. Here the student is exposed to practical ideas on increasing the effectiveness of narration in ordinary conversation and in the classroom. Along with a constructive plan for story telling methods is given a bibliography of good selections from prose and narrative poetry works.

Delving into the elements which make for clear, adequate, and pleasing communication, Seely and Hackett present a discussion of language qualities through suggestions and exercises for choosing words skillfully, using dictionaries and thesauri, constructing sentences, and helping the listener understand.

After all this, the student may want to investigate "What makes the wheels go 'round'"; so under this caption is found a treatment of pronunciation. Going deeper into the rudiments, the authors treat the improvement of the voice through respiration, phonation, resonance, and articulation. The student then lets his actions speak—and here is given good material for improving the use of posture, movement, and gesture in speaking.

The aspects of public speaking are presented under a section entitled "Ladies and Gentlemen." Preparation for speaking is outlined step by step from the planning and research through to various types of delivery. The actual speaking, listening, presiding, and

a discussion of radio activities, along with a treatment of debate as a public speaking phase, are integrated with proposed exercises for actual experience in each.

One of the most important aspects of oral expression, that of reading aloud, is considered by an approach of preparation necessary to read effectively to others. Differences in oral reading of prose and poetry are discussed. The activity of choral interpretation is presented. Here, also, are given some excellent selections for choral speaking, and the selections are accompanied by specific suggestions for interpretation and delivery.

Dramatic art and the problem of play production as an integral part of oral language activity for the student are given a most concise and interesting treatment. A brief history of the theatre ends in a timely and careful picture of the present-day theatre, with especial emphasis on the school dramas. Types of drama are set forth and explained, and examples providing experiences in each are given.

The business of play production, including first an explanation of stage terms, is outlined from the initial steps of designing the sets, organizing the production staffs, and getting rehearsals under way, to the ensuing preparations for costuming, lighting, collecting of properties, and making-up the cast. A particularly fine part of this section is that dealing with the actual construction of scenery. A one-act play is reprinted and, for this play, instructions are given and drawings included to clearly show the steps for the preparation of the scenery.

Finally, the authors have added to an already splendid book by including practical and helpful appendixes. Here the students can find excellent suggested materials to give them valuable experiences in speaking. An outline for parliamentary procedure, materials for oral interpretation, lists of plays for the school theatre, names and addresses of stage supply companies, and like aids are presented in these appendixes.

The final effect of the book impresses the reader with the realization that the authors have done just what they sought to do—aided student and teacher to better comprehend the ways of speech and to develop skill in the use of oral language as it is lived.

—R. W. Masters

Indiana State Teachers College

GREENE, H. A. AND KELLEY, V. H. *Iowa Silent Reading Tests*. New Edition. Yonkers-on-Hudson: World Book Company, 1939.

The continuation of the stress placed upon reading in the last decade or two has brought a wealth of reading tests to the market. A new edition of the Iowa Silent Reading Tests both for elementary and secondary school levels is welcomed into the fold.

The elementary test is for grades 4 to 9 and is available in two forms. The advanced test is for use in high schools and colleges and is likewise available in two forms.

The test of rate of reading is doubtless an improvement over the rate test in the earlier edition. Comprehension is tested by a number of sub-tests, covering comprehension of various types of reading materials.

A unique feature of the Iowa tests (both old and new editions) has been the tests of

skills required in locating information. This factor is usually omitted in reading tests. The test as a whole has satisfactorily high reliability. What should be desirable is a measure of the reliability of each of the sub-tests. It is yet to be proven that reading may actually be divided into the number and kinds of skills which are indicated by the authors. If it is true that the seven tests represent separate skills, then each should be tested separately, with the reliability of each test ascertained independently. If there is much overlapping in the skills tested, it would seem that a test with fewer or no sub-tests would be quite as good a test and would in addition be simpler to score.

One also wonders, if reading is to be separated into various independent skills, why the reading of technical or scientific material was omitted.

—Margaret Pankaskie

Indiana State Teachers College

ARONOFF, FANNE; CONVERS, GILBERT; AND HODGES, NORA. *A Guide to Materials for Teaching English to Refugees*. New York: Committee for Refugee Education, 1940. 36 pp.

Probably every teacher, certainly every teacher of English, knows or at least surmises that there is a mass of teaching material available free or at small cost, but the problem is to find where and how it is to be had. Some valuable source collections are published (e. g., Woodring, Jewett, and Benson: *Enriched Teaching of English in the Junior and Senior High School*), but unfortunately, they are obsolescent as soon as they come from the press.

The present pamphlet is the most recent such bibliography to come to my attention. It has been prepared for a restricted audience, as the title indicates, and consequently is less extensive than if prepared for the public schools. Still, what is informational for emigres is not likely to be barren for school children. The pamphlet will serve to bring up to date previous lists and to broaden the scope of those whose audience is the public schools.

"The Guide . . . contains a list of five hundred classroom and reference materials . . . Brief descriptions suggest the special usefulness of each item and the grade for which it is adapted . . . The majority of the materials listed are free or so low in cost that less than two hundred dollars was spent for the entire collection of five hundred publications, charts, and maps."

—Victor C. Miller

Indiana State Teachers College

BRUBACHER, JOHN S. *Modern Philosophies of Education*. New York: McGraw-Hill Book Company, 1939. 370 pp.

The author of this book on the philosophies of education set for himself an almost insurmountable task in making preparation before the actual writing of the book was begun. Practically all the American literature since the turn of the century was canvassed in order to give the author a broad acquaintance with the varied philosophies of education. In addition to that, several foreign sources of recognized importance were drawn upon from time to time.

The book meets the needs for a comprehensive general treatment of all the important schools of educational philosophy within the confines of a single volume. The author's approach is impartial and inclusive. The book introduces the student to the whole range of viewpoints on the main problems of educational philosophy. Considerable space is devoted to the relation between problems in educational philosophy and the more funda-

mental problems of general philosophy.

For the school administrator and teacher, this book gives a critical summary and interpretation of various basic concepts upon which a sound theory for a sound practice must be built.

—Olis G. Jamison
Indiana State Teachers College

MOORE, CLEMENT CLARK. *The Early History of Columbia College*. New York: Columbia University Press, 1940. 41 pp.

This publication is the first history of Columbia College to be published. The introduction contains a full account of the anniversary celebration of the first commencement in that institution which was founded in 1754. The toasts given to the honored guests are included and indicate the distinguished personnel of the "Alumni Association." A brief sketch of the life and accomplishments of Clement Moore who wrote "Twas the Night Before Christmas" is given since he was the main speaker and the author of the publication.

The content of this small book is best understood and appreciated by those who have attended Columbia College and those who have followed the distinguished alumni of this institution from the time it was founded to the present time.

The most interesting details and important facts connected with the early history of the college are related, together with the many changes that have taken place since its foundation. The values of collegiate education as it leads to higher attainments are stressed in the latter part of the book.

This small book is reproduced in facsimile from the copy in the Columbia University Library.

—Joy M. Lacey
Indiana State Teachers College

MEISSNER, WILHELMINE E., AND MEYERS, ELIZABETH Y. *Basketball for Girls*. New York: A. S. Barnes and Company, 1940. 92 pp.

This is a welcome addition to the popular "Barnes Dollar Sports Library." The authors, one a high school teacher and the other a college instructor, need no introduction to those who have kept up with recent studies in basketball problems. The purpose of the book, as stated by the authors, is to be "useful in promoting more efficient basketball players and teams." They presuppose that those who use the book already have a general basic understanding of the game.

The book is thoroughly modern in keeping with the latest developments of the game. Organization of the techniques presented include for each separate pass, shot, etc., a brief descriptive paragraph and a list of its uses. Many of the skills so presented are illustrated with line drawings of players in action. Each general grouping has a well chosen list of "points to be remembered."

Twenty-four diagrams of group practices and fifteen planned plays give practical suggestions for making a wide variety of skills effective in actual play.

A chapter on officiating brings to a close a volume which should be helpful to anyone coaching girls' basketball.

—Ruby J. East
Indiana State Teachers College

ROBBINS, RAINARD B. *College Plans for Retirement Income*. New York: Columbia University Press, 1940. 353 pp.

College Plans for Retirement Income, by Rainard B. Robbins, is an extension of a study made by the author in 1934. This volume published in 1940 reflects an exhaustive study

in the field of retirement made of colleges and universities of the United States and Canada. The book is timely since it presents in a clear, concise manner many problems which now confront college officials.

Institutions included in this study are those listed as colleges and universities in the World Almanac; those approved by any of the five regional accrediting associations in the United States; those accredited by the Association of American Universities; and those with similar standards in the provinces of Canada. Only those teachers colleges were included that make use of the Teachers Insurance and Annuity Association.

The study is sufficiently thorough to show the classes of staff members affected, the optional or required participation, the probationary period, the amount of contributions, the retirement age, the death benefits, and other items of interest directly affecting the participant.

A concise resume of the history of the Teachers Insurance and Annuity Association is presented, setting forth the gifts by Andrew Carnegie, which have amounted to many millions of dollars. Also, the rules and regulations which have been established by the Board of Trustees of these funds are presented.

Brief descriptions of retirement plans are given of more than 175 institutions throughout the United States and Canada. These descriptions give the principal facts for the retirement plans for those using the T.I.A.A. as well as those not using the T.I.A.A.

The second division of the book presents the evolution of the various college plans for college teachers' retirement income, without reference to particular institutions. The desirable provisions of the maintenance of the plans are pointed out in a clear, concise manner.

A valuable appendix is presented showing a synoptic schedule of Teachers Insurance and Annuity Association touching the principal items in retirement for approximately two hundred institutions.

This book is particularly valuable to all who may be interested in institutions of higher learning, and to the public in general, because of the universal interest in the Social Security Act and other contributing retirement plans as they affect college teachers.

—Grover Van Duyn
Indiana State Teachers College.

KNISS, F. ROSCOE. *Kniss World History Test*. Yonkers-on-Hudson: World Book Company, 1940.

This is a validated and reliable standardized test of 130 items for sophomores in high school. It is planned for fifty minutes net. The six parts of it test respectively on these phases of world history: (1) factual knowledge; (2) time relationships; (3) contributions of the past; (4) cause and effects; (5) tying past and present together; (6) problems of life. The test comes in either of two forms of about equal difficulty. Part I is a completion test, Part II is match list in form with four lists of dates and events to be matched. Parts III, IV, V, and VI are multiple choice items, with four choices for each item.

The 130 items cover the range of history from the Egyptian civilization to the present generation. Each of the items deals with a significant event, happening, or idea. Each item is well stated. In only a few cases of the match list items could there be any doubt about the correct answer.

A perforated cardboard key to be superimposed on the answered test pages makes the scoring of the test easy and rapid. A form for class record of scores and percentile

ranks of students on each of the parts of the test comes with it.

This test is probably the best standardized test in world history for high school. It covers the field and it is excellent in form and content.

—Waldo F. Mitchell
Indiana State Teachers College

TURSE, PAUL L. *Turse Shorthand Aptitude Test*. Yonkers-on-Hudson: World Book Company, New York, 1940.

No subject in the school curriculum presents more clearcut issues for the acquisition of skill than does shorthand. Knowledge of shorthand vocabulary, writing skill, ability to take dictation, and ability to read and transcribe shorthand with a high degree of accuracy and intelligence are necessary. These accomplishments depend upon fundamental prerequisites of a good general knowledge of many subjects and some technical knowledge, an excellent longhand vocabulary, the ability to spell accurately, and the ability to know correct sentence structure and punctuation.

Students who are mediocre or poor in these fundamental requirements may by hard work improve, but there is little hope for the one who does not overcome such deficiencies ever becoming a good stenographer.

Some prognostic and aptitude tests have been devised to make it possible to select from the large groups of students each year who wish to undertake the study of shorthand those who appear to be fitted for the study and its successful development. This Turse Shorthand Aptitude Test seems to me to be one of the best I have seen. Its seven parts which are planned to test stroking, spelling, phonetic association, symbol transcription, word discrimination, dictation, and word sense cover thoroughly the factors involved.

I think a little more time than is indicated should be allowed for some of the parts. Most students would just be getting well started when time is called.

This test could be used with groups already started in the study of shorthand to show the students' shortcomings in any particular phase of the work and upon what phases concentration should be made. It could also be used as a basis for regrouping the students if programs could be made sufficiently flexible.

—Kate Brown
Indiana State Teachers College.

STANWICK, TAD. *Lacrosse*. A. S. Barnes and Company, New York, 1940. 92 pp.

Lacrosse by Tad Stanwick is one more contribution to the field of physical education by the Barnes Publishing Company in The Barnes Dollar Sports Library. Mr. Stanwick is coach of lacrosse at Lehigh University. The feature of his book is the fine drills he has devised for teaching individual and team techniques of the sport.

Lacrosse is the oldest sport in America and a direct heritage from the Indians, who are reported to have played the game extensively according to Mr. Stanwick. He says further, "It is without doubt the fastest game on two feet."

The Indian, Canadian, English, and United States histories of the game are fully given. The game is described, technical terms are defined, the techniques of stick handling, defense, offense, features of team play, and finally the excellent coaching hints with suggestions for equipment and sample plays complete the book.

—Arthur L. Strum
Indiana State Teachers College

The Teachers College Journal

GREENE, EDWARD B. *Michigan Vocabulary Profile Test*. Yonkers-on-Hudson: World Book Company, 1939.

The new Michigan vocabulary test is designed for use in high schools and colleges. It is available in two forms at present, with two further forms in the process of construction. Each form consists of eight divisions of vocabulary areas being entitled: (1) Human Relations, (2) Commerce, (3) Government, (4) Physical Sciences, (5) Biological Sciences, (6) Mathematics, (7) Fine Arts, (8) Sports. These areas were chosen because of their seeming importance and independence. The independence of the areas was based, presumably by interpolation, from factor analyses of Strong's and Thurston's Interest Blanks, which showed considerable independence of these areas.

This test includes 240 items, which will be appreciated by many test administrators, since most tests of vocabulary are too short.

—Margaret Pankaskie.

Indiana State Teachers College.

KATONA, GEORGE. *Organizing and Memorizing*. Columbia University Press, New York, 1940. 318 pp.

In the field of psychology of learning, this volume appears to be an important contribution. The author was for many years connected with psychological laboratories of several German universities and has recently been carrying on research at the New School for Social Research in New York. In his experiments as described in the present volume, he has undertaken to demonstrate that learning done in accordance with Gestalt methods is more successful than that based on the principles of associationism, which emphasize

repetition and building larger aggregations out of elements. There were several experiments in which these two methods of learning were compared—card tricks, match problems, etc. Throughout the results show that it is better to gain an understanding of material, basis of grouping, etc., than it is to memorize the solution of the problem. Special attention is given to the transfer of training, and the advantage for retention of the method of learning by understanding. One is impressed with the careful, painstaking procedure and the sure mastery of the field as revealed by the discussion. The appendices contain full descriptions of the experiments, detailed statistical data, etc. The bibliography includes 114 titles.

While this is but one of a long line of research studies of the meaningful aspects of learning, it is likely to rank as one of the most significant.

What are the practical implications of such research work? The answer may be given in the author's own statements, as follows: "Real understanding—understanding derived from adequate organization of the material—is not unknown in educational practice. It may be that it is even better known there than in psychological theory. But educational practice may be improved by a progress of the psychology of learning. There is a difference between accidentally hitting upon the right method and choosing it because of a sound theoretical basis. Learning by understanding will take its proper place in the field of education when we appreciate the role of adequate organization and consciously orient our teaching methods according to the requirements of the material. The question is not only how

to supplement pure memorizing by the introduction of explanations and demonstrations but also, and more significantly, how and to what extent mechanical memorizing and cramming can be eliminated by means of the adoption of meaningful methods of learning."

This book should prove useful to instructors and graduate students in psychology.

—E. L. Welborn
Indiana State Teachers College

NOREN, ARTHUR T. *Softball*. A. S. Barnes and Company, New York, 1940. 108 pp.

Softball by Arthur T. Noren, Superintendent of Recreation at Elizabeth, New Jersey, is another Barnes Publishing Company book in The Barnes Dollar Sports Library.

According to Mr. Noren, last year in the United States, on the basis of figures compiled by the Amateur Softball Association of America and the National Recreational Association, more than ten million players played on organized teams under the auspices of playgrounds, schools, industries, Y. M. C. A., church, fraternal, or independent management. He says that softball should be recognized on the basis of these figures as the most popular sport in America today.

Suggestions for equipment and construction are given with costs of materials indicated. Construction details are especially fine for those interested in promoting the sport. The description of techniques of play is limited and the photographs are of very little value. Approximately half of the pages of the book contain rules, explanations, and interpretations of rules.

—Arthur L. Strum
Indiana State Teachers College

What Can We Teach about Motion Picture Appreciation?

(Continued from page 64)

the variety which makes for art is not a heterogeneous combination of people and things, but a balanced, carefully-differentiated type, molded to a final, unified effect. *You Can't Take It With You* had splendid variety of character; the sort of variety that fitted together. *Gone With The Wind* had variety in scene, action, costume, and character, but there it was supported by a unity and coherence which gave it the oneness of effect.

BALANCE

With a need for variety comes the important principle of balance. All of the esthetic principles could go for naught if there were not the stabilizing effect of balance. In *Pinnocchio*, Walt Disney achieved a fine balance of the fantastic with the real, the fairyland with life, the people with caricatures, the impossible with the likely. Here too, with balance, Disney had used effectively the principle of contrast.

In *Juarez*, the title character, itself so complete and unified and a possible demination to all else, was carefully balanced against the political history theme of the story.

RHYTHM

All art must have a rhythm. Whether or not it is detectable is not important. Unconsciously an audience feels the rhythm. It may be the rhythm such as is found in *The Good Earth*, the slow, penetrating monotony of poverty and heartbreak. It may be the hilarious rhythm of comedy as found in *You Can't Take It With You*. It takes on a form in the scene portrayed, the costumes, the characterizations, or in the style of acting. It may be a stirring rhythm which one found in an early film, *The Birth of a Nation*.

Although these esthetic principles are seldom "visible to the naked eye," at least the conscious eye of a movie-

going audience reacts to them. They are there, and responsible for that reaction. "It was a good film!" Few people recognize the arts of unity, coherence, balance, contrast, or rhythm and are aware only of a good final effect.

Just as we saw the development of the moving picture from its crude state to a form where, in line, mass, color, and sound it expresses the esthetic elements, so we can develop the taste for that art in children.

What can we do, then, to use good motion pictures as a form of appreciation of art, particularly where children are concerned? We can recognize the pictures which incorporate these esthetic principles, and send the children to see them. Through discussion of good films, and a pointing out of those factors which make a film an artistic and enjoyable production, we can engender in the child-mind a critical appreciation for that which is artistically well done.

The Ideal Remedial Reading Program

(Continued from page 54)

fit into any group and will need to be treated individually, at least for a time. There may be children who have had too unpleasant experiences with competition and, therefore, withdraw from all social situations where they fear comparison with their fellows. They may be excessively shy or excessively boisterous and rough. In many instances a few periods of carefully planned individual work will be sufficient, after which the child may be included in some

remedial group or return to the regular classroom.

The class may meet at any time of the day, observing only the usual precautions of not making the school day too long and of not depriving this group of special privileges. That is, the class should not meet at those periods of the school day when especially coveted activities are in progress, such as gym, assembly, free play, or whatever period or periods take on the aspects of special enjoyment.

In summarizing the discussion of the last of our three questions we may say that reading disabilities are taught in essentially the same way that other classroom teaching is carried on. Any technique that makes for progress and happy adjustment is a good one. It is well to remember, however, that sometimes efficiency is sacrificed temporarily in the interests of motivation. In remedial reading as everywhere else in the educational system, we begin to teach the child at the level at which we find him.

Personality and Social Problems in Speech Development

(Continued from page 59)

defective child. After the principle is clearly in mind the operation of it in any specific case is a matter of keeping one's eyes open and watching for slight clues to the behavior pattern which are not necessarily presented clearly. It requires a study of the individual over a long period of time, seeing him in a number of different circumstances and finding all that we possibly can about him until we have at least one hundred of the

one hundred-fifty pieces that go into completing the jig-saw puzzle of his workings. Just such instances as noticing how the mother instructs the youngster to say goodbye as she leaves the clinic rather than acceptance of her verbalizations are clues. If we accept the verbalizations, if we accept the obvious that is thrown at us, we may miss what is actually happening. If each one of us bears in mind these things: "We are what we

are because of what has happened to us," the tool that has been chosen, be it speech, be it reading, or any other sort of avenue, was the best of tools for the individual as he saw things at the time he chose it, that this is true of all people, including me, then each one of us can observe these principles in operation, not always dramatically, but in very tiny cues and innuendoes. If we have our eyes open, we cannot miss them.

How Radio Can Vitalize the Language Program

(Continued from page 68)

mentioned, I hope you will try them in your teaching this winter. I hope you will make use of the radio facilities which the library at Indiana State Teachers College and the Studio, under Dr. Clarence Morgan, offer to you. I hope you will listen to the educational broadcasts from this station and from WLS where

Harriet Hester whom you will hear tomorrow morning, produces *School Time* once a week. I hope you will send to the major networks for their weekly bulletins on educational broadcasts. I hope you will plan months in advance to use radio in your classroom as you teach certain units of work. If only a few of you

in this audience are stimulated to do that, radio will have made its introduction into the actual classroom in the Wabash Valley area to give its contribution to education. For truly radio has learned how to dress up old ideas in new clothes, to use devices which all of us believe is a new guise, to help us to be more effective in our teaching.

SUMMER SESSION 1941

SPECIAL EVENTS

ELEMENTARY EDUCATION WORKSHOP, JUNE 16-27

CREATIVE WRITING CLINIC, JUNE 23-27

SUMMER SPEECH INSTITUTE, JULY 14-19

MUSIC FESTIVAL, ENTIRE SESSION

DISTINGUISHED PERSONS TO BE ON CAMPUS DURING SUMMER SESSION

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GEORGE C. CARROLL, *Superintendent of Schools, Terre Haute, Indiana*

MISS MAY K. DUNKAN, *Director of Practice Teaching, University of Kentucky, Lexington, Kentucky.*

DR. DONALD DURRELL, *Director of Educational Clinic, University of Boston, Boston, Massachusetts.*

DR. HARRY L. EWBANK, *Professor of Speech, University of Wisconsin, Madison, Wisconsin.*

MISS ETHEL M. FALK, *Author and Lecturer, Madison, Wisconsin.*

MISS BLANCHE FUQUA, *Director of Child Growth, Terre Haute, Indiana*

MISS MABEL HOLLAND, *Supervisor of Elementary Education, Fort Wayne, Indiana.*

MISS ETHEL R. HOWARD, *Curriculum Specialist, Lakewood, Ohio.*

MR. RALPH IRONS, *Superintendent of Schools, Evansville, Indiana.*

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DR. WIDNELL D. KNOTT, *New York State Department of Education, Albany, New York*

MISS GOLDA MILLINER, *Supervisor of Elementary Education, Elkhart, Indiana.*

DR. MORRIS MITCHELL, *Professor of Education, Alabama State Teachers College, Florence, Alabama.*

MISS NELLE MCCALLA, *Librarian, Shelby County, Tennessee.*

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DR. BERTRAND SMITH, *Director of Guidance, Quincy, Illinois.*

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MISS MAMIE SPANGLER, *Supervisor of Schools, Lake County, Indiana.*

DR. RUTH STRICKLAND, *Professor of Elementary Education, Indiana University, Bloomington, Indiana.*

MRS. VICTORIA EVANS WAGNER, *Principal of Ethical Culture School, New York City.*

MISS MARY WILLCOCKSON, *Supervisor of Elementary School, Miami University, Oxford, Ohio.*

MRS. RUTH COOPER WILLIAMS, *Assistant Professor of Commerce, Oklahoma Agricultural and Mechanical College, Stillwater, Oklahoma.*

DR. PAUL WITTY, *Reading Specialist, Northwestern University, Evanston, Illinois.*

Laboratory School in Session:

Elementary School—June 9, 1941-July 11, 1941

Secondary School—June 9, 1941-July 24, 1941

Special Manuscript Criticism Service for Writers in Clinic to be Directed by Dr. Burgess Johnson, June 23-27.

ENROLLMENT: Summer Session, June 9; Mid-Spring Term, April 29.

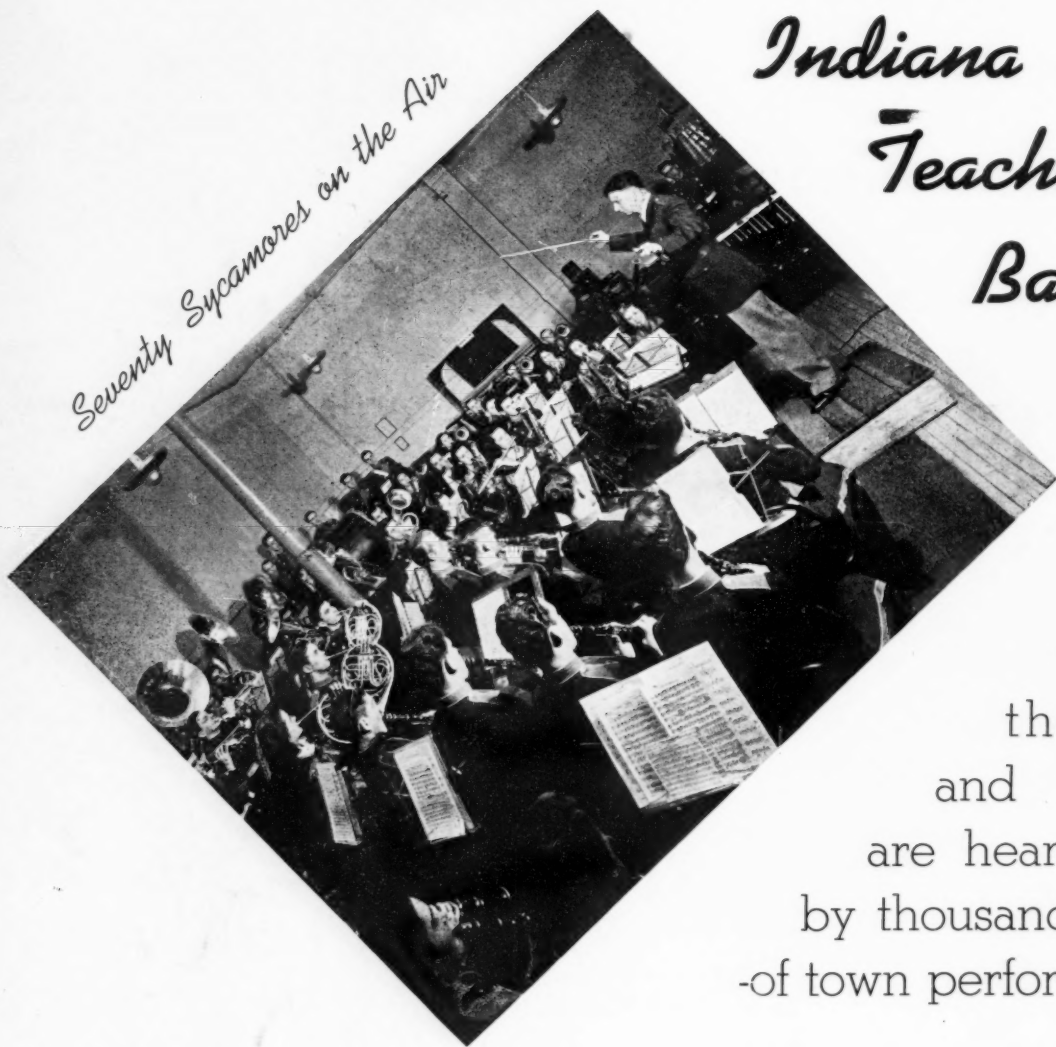
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